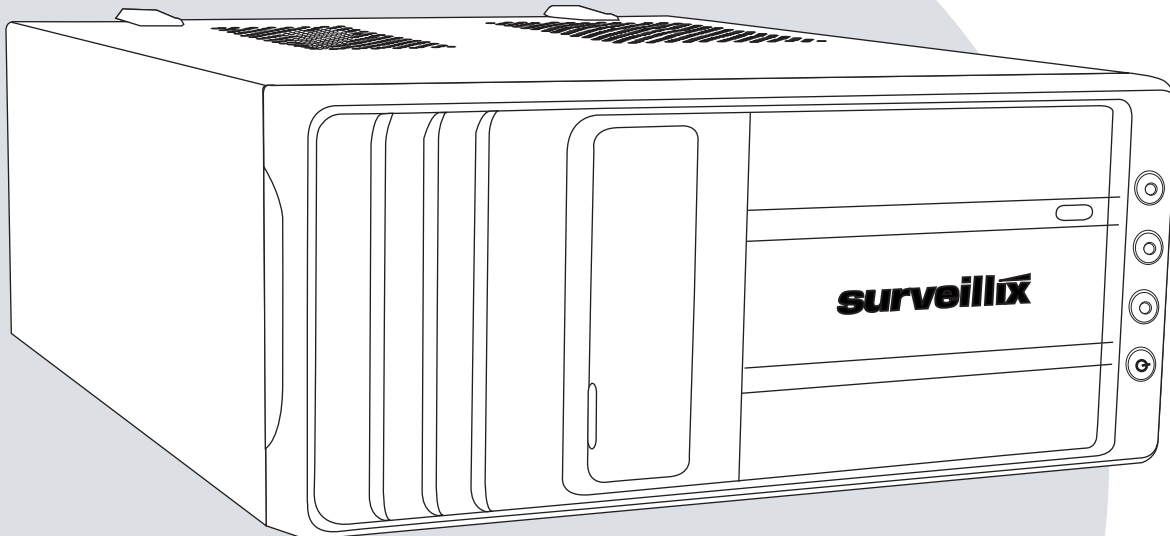


surveillix

XVSv Digital Video Recorder

User Manual

model no. XVSv16-240-X



Please carefully read these instructions before using this product.
Save this manual for future use.

TOSHIBA

Surveillix™ XVSv
Operation Manual (G6 Hardware & Version 5.0 Software)

Manual Edition 32861AA- July 2014

Printed in USA

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The following words and symbols mark special messages throughout this guide:

WARNING: Text set off in this manner indicates that failure to follow directions could result in bodily harm or loss of life.

CAUTION: Text set off in this manner indicates that failure to follow directions could result in damage to equipment or loss of information

LIMITED WARRANTY DIGITAL VIDEO RECORDER

The Imaging Systems Division of Toshiba America Information Systems, Inc. ("ISD") makes the following limited warranties. These limited warranties extend to the Original End-User ("You[r]").

Limited Three (3) Year Warranty of Labor and Parts

The Imaging Systems Division of Toshiba America Information Systems warrants this product and parts against defects in material or workmanship for a period of three (3) years from the date of original retail purchase by the end-user. The first year of the three year warranty period will cover advance replacement of a defective unit and the remaining two years will be repaired by the Surveillix DVR Support Center factory. During this period, ISD will repair or replace a defective product or part with a new or refurbished item. The user must deliver the entire product to the Surveillix DVR Repair Facility. The user is responsible for all transportation and insurance charges for the product to the DVR Repair Facility. ISD reserves the right to substitute Factory Refurbished Parts and / or Factory Refurbished Product in place of those in need of repair.

Step-by-step Procedures - How to Obtain Warranty Service

[1] Verify operation of the unit by checking the instruction manual and web site for the latest updates at

www.toshibasecurity.com

[2] If there is a defect in material or workmanship, contact the Surveillix DVR Support Center at (877) 855-1349 [877-855-1FIX] to speak to a technical support representative and schedule service.

[3] Arrange for delivery of the product to the Surveillix DVR Repair Facility. Products must be insured and securely packed, preferably in the original shipping carton. A letter explaining the defect and a copy of the bill of sale or other proof of purchase must be enclosed with a complete return street address and daytime telephone number. The Tracking Number should also be indicated on your documents. Charges for transportation and insurance must be prepaid by the end-user.

Critical Use Disclaimer

The product is not designed for any "critical applications." "Critical applications" means life support systems, exhaust or smoke extraction applications, medical applications, commercial aviation, mass transit applications, military applications, homeland security applications, nuclear facilities or systems or any other applications where product failure could lead to injury to persons or loss of life or catastrophic property damage. Accordingly, Toshiba disclaims any and all liability arising out of the use of the product in any critical applications.

Your Responsibilities

The above warranty is subject to the following conditions:

[1] You must retain the bill of sale or provide other proof of purchase.

[2] You must schedule service within thirty days after you discover a defective product or part.

[3] All warranty servicing of this product must be made by the Surveillix DVR Repair Facility.

[4] The warranty extends to defects in material or workmanship as limited above, and not to any products or parts that have been lost or discarded by user. The warranty does not cover damage caused by misuse, accident, improper installation, improper maintenance, or use in violation of instructions furnished by ISD. The warranty does not extend to units which have been altered or modified without authorization of ISD, or to damage to products or parts thereof which have had the serial number removed, altered defaced or rendered illegible.

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TOSHIBA AMERICA INFORMATION SYSTEMS, INC.
Imaging Systems Division

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IMPORTANT SAFEGUARDS

1. **Read Owner's Manual** – After unpacking this product, read the owner's manual carefully, and follow all the operating and other instruction
2. **Power Sources** – This product should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supply to your home or business, consult your product dealer or local power company
3. **Ventilation** – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
4. **Heat** – The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products that produce heat.
5. **Water and Moisture** – Do not use this product near water.
6. **Cleaning** – Unplug this product from the wall outlet before cleaning.
7. **Power Cord Protection** – Power-supply cords should not be routed so that they are not likely to be walked on or pinched by items placed against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.
8. **Overloading** – Do not overload wall outlets; extension cords, or integral convenience receptacles as this can result in a risk of fire or electrical shock.
9. **Lightning** – For added protection for this product during storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power line surges.
10. **Object and Liquid Entry Points** – Never insert foreign objects into the NVR, other than the media types approved by Toshiba as they may touch dangerous voltage points or short-out parts that could result in a fire or electrical shock. Never spill liquid of any kind on the product.
11. **Accessories** – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious personal injury and serious damage to the product.
12. **Disc Tray** – Keep fingers clear of the disc tray as it is closing. Neglecting to do so may cause serious personal injury.
13. **Burden** – Do not place a heavy object on or step on the product. The object may fall, causing serious personal injury and serious damage to the product.
14. **Disc** – Do not use a cracked, deformed, or repaired disc. These discs are easily broken and may cause serious personal injury and product malfunction.
15. **LAN Port** - This equipment is for indoor use and all the communication wirings are limited to inside of the building.

IMPORTANT SAFEGUARDS, continued

16. **Damage Requiring Service** – Unplug the unit from the outlet and refer servicing to qualified service personnel under the following conditions:
 - a. When the power-supply cord or plug is damaged.
 - b. If liquid has been spilled, or objects have fallen into the unit.
 - c. If the unit has been exposed to rain or water.
 - d. If the unit does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the unit to its normal operation.
 - e. If the unit has been dropped or the enclosure has been damaged.
 - f. When the unit exhibits a distinct change in performance - this indicates a need for service.
17. **Servicing** – Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified personnel.
18. **Replacement Parts** – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
19. **Safety Check** – Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.

BATTERY EXPLOSION CAUTION STATEMENT

CAUTION: Risk of Explosion if Battery is replaced by an Incorrect Type.
Dispose of Used Batteries According to the Instructions.

NOTES ON HANDLING

Please retain the original shipping carton and/or packing materials supplied with this product. To ensure the integrity of this product when shipping or moving, repackage the unit as it was originally received from the manufacturer.

Do not use volatile liquids, such as aerosol spray, near this product. Do not leave rubber or plastic objects in contact with this product for extended periods of time. Rubber or plastic objects left in contact with this product for extended periods of time will leave marks on the finish.

The top and rear panels of the unit may become warm after long periods of use. This is not a malfunction.

NOTES ON LOCATING

Place this unit on a level surface. Do not use it on a shaky or unstable surface such as a wobbling table or inclined stand.

If this unit is placed next to a TV, radio, or VCR, the playback picture may become poor and the sound may be distorted. If this happens, place the recorder away from the TV, radio, or VCR.

AVOID VOLATILE LIQUID

Do not use volatile liquids, such as an insect spray, near the unit. Do not leave rubber or plastic products touching the unit for a long time. They will leave marks on the finish. Do not use a chemically saturated cloth.

NOTES ON MAINTENANCE

To keep the recorder always operational we recommend regular inspection maintenance (cleaning parts or replacement). For details, contact the nearest dealer.

NOTES ON MOISTURE CONDENSATION

Moisture condensation damages the recorder. Read the following information carefully.

Moisture condensation occurs during the following cases:

When this product is brought directly from a cool location to a warm location.

When this product is moved to a hot and humid location from a cool location.

When this product is moved to a cool and humid location from a warm location.

When this product is used in a room where the temperature fluctuates.

When this product is used near an air-conditioning unit vent

When this product is used in a humid location.

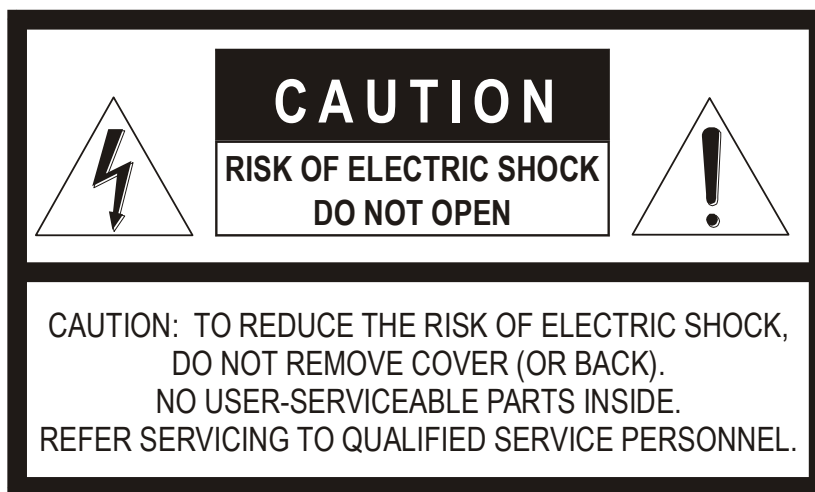
Do not use the recorder when moisture condensation may occur.

If the recorder is used in such a situation, it may damage discs and internal parts. Remove any CD discs, connect the power cord of the recorder to the wall outlet, turn on the recorder, and leave it for two to three hours. After two to three hours, the recorder will warm up and evaporate any moisture. Keep the recorder connected to the wall and moisture will seldom occur.

WARNING

TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.
DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDE THE ENCLOSURE.
DO NOT OPEN THE CABINET.
REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

CAUTION



RACK MOUNT INSTRUCTIONS

Elevated Operating Ambient – If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (T_{ma}) specified by the manufacturer.

Reduced Air Flow – Installation of the equipment in a rack should be such that the amount of airflow required for safe operation of the equipment is not compromised.

Mechanical Loading – Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

Circuit Overloading – Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on over current protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

Grounding – Grounding of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

FCC STATEMENT

INFORMATION TO THE USER: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

USERS OF THE PRODUCT ARE RESPONSIBLE FOR CHECKING AND COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND STATUTES CONCERNING THE MONITORING AND RECORDING OF VIDEO AND AUDIO SIGNALS. TOSHIBA SHALL NOT BE HELD RESPONSIBLE FOR THE USE OF THIS PRODUCT IN VIOLATION OF CURRENT LAWS AND STATUTES.

Disclaimer

We disclaim any responsibility and shall be held harmless for any damages or losses incurred by the user in any of the following cases:

1. Fire, earthquake or any other act of God; acts by third parties; misuse by the user, whether intentional or accidental; use under extreme operating conditions.
2. Malfunction or non-function resulting in indirect, additional or consequential damages, including but not limited to loss of expected income and suspension of business activities.
3. Incorrect use not in compliance with instructions in this user's manual.
4. Malfunctions resulting from misconnection to other equipment.
5. Repairs or modifications made by the user or caused to be made by the user and carried out by an unauthorized third party.
6. Notwithstanding the foregoing, Toshiba's liabilities shall not, in any circumstances, exceed the purchase price of the product.

Usage Limitation

The product is not designed for any "critical applications." "Critical applications" means life support systems, exhaust or smoke extraction applications, medical applications, commercial aviation, mass transit applications, military applications, homeland security applications, nuclear facilities or systems or any other applications where product failure could lead to injury to persons or loss of life or catastrophic property damage.

Accordingly, Toshiba/TAIS disclaim any and all liability arising out of the use of the product in any critical applications.

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PREFACE

ABOUT THIS GUIDE

This manual is a setup and maintenance guide that can be used for reference when setting up the recorder and for troubleshooting when a problem occurs. Only authorized personnel should attempt to repair this unit.

Toshiba reserves the right to make changes to the DVRs represented by this manual without notice.

The following text and symbols mark special messages throughout this guide:

Note Text set off in this manner indicates topics of interests that can help the user understand the product better.

Tip Text set off in this manner indicates topics and points of interests that can be helpful when using or settings up the DVR.

TECHNICIAN NOTES

Warning Only authorized technicians trained by Toshiba should attempt to repair this DVR. All troubleshooting and repair procedures that may be shown are for reference and minor repair only. Because of the complexity of the individual components and subassemblies, no one should attempt to make repairs at the component level or to make modifications to any printed wiring board. Improper repairs can create a safety hazard. And any indications of component replacement or printed wiring board modifications may void any warranty

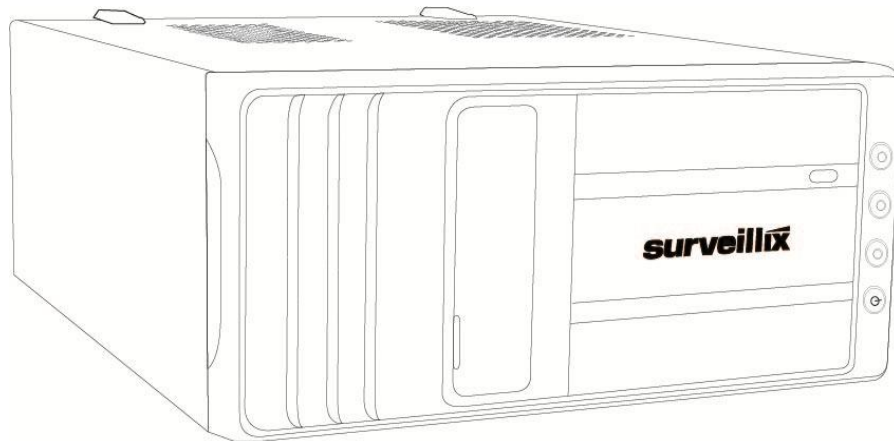
Warning To reduce the risk of electrical shock or damage to the equipment:

- Do not disable the power grounding plug. The grounding plug is an important safety feature.
- Plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.
- Disconnect the power from the computer by unplugging the power cord either from the electrical outlet or the computer.

Caution To properly ventilate your system, you must provide at least 3 inches (7.6 cm) of clearance at the front and back of the DVR.

INTRODUCTION

PRODUCT DESCRIPTION



A Surveillix XVSv is a DVR, a server that performs as a High Definition Digital Recorder. By utilizing the many features of a computer, including processing power, storage capacity, graphics compression, and security features, the DVR is more powerful than the analog recorders of the past.

The Surveillix DVR server software comes pre-configured for fast and seamless integration within your existing IT infrastructure.

Designed around Microsoft® Windows 7 Embedded, the server software offers unparalleled stability, security, and ease of use.

Accordingly, your security investment has never been easier to maintain. Multiple users may simultaneously connect through any network connection for instantaneous live viewing, digital search, and off site video storage. Users can also connect remotely through DSL, Cable Modems, or ISDN. This powerful software enables users to establish recording schedules, create motion detection zones, use PTZ controls, and configure alarm inputs and outputs for each of the system's cameras. With the latest advancements in the DVR Server Software, searching and indexing your video archive has never been easier. Video can now be found, viewed, and exported in a number of file formats with just a few clicks.

The Surveillix DVR is high performance security product ready to meet today's security demands.

FEATURES

Toshiba's Surveillix DVRs include the following new features:

- Optimized and Designed for Microsoft® Windows 7 Embedded®
- Up to 16 Camera Inputs
- Supports up to 4 Relay Outputs on Alarm Activation
- Supports up to 16 Sensor Inputs for Alarm Control
- Remote System Operation & Configuration
- Supports Multiple Simultaneous Remote Connections
- PAN / TILT / ZOOM Controls
- Simultaneous Video Search, Playback and Backup
- Video Indexes for Easy Searching
- Multiple Levels of Security Access
- 1 Composite Outputs
- Up to 16 Network Recording Channels
- Up to 16 Audio Inputs
- Output the Video to a NTSC/PAL Display
- Up to 8 Terabytes internal storage
- Digital Signature Support
- Continuous, Motion Detection, Alarm, Pre-Alarm, and Scheduled Recording Modes
- Hardware Watchdog
- Recording Resolution 720x480 / 720x240 / 360x240 NTSC
 720x576 / 720x288 / 360x288 PAL

CONTROLS AND CONNECTIONS

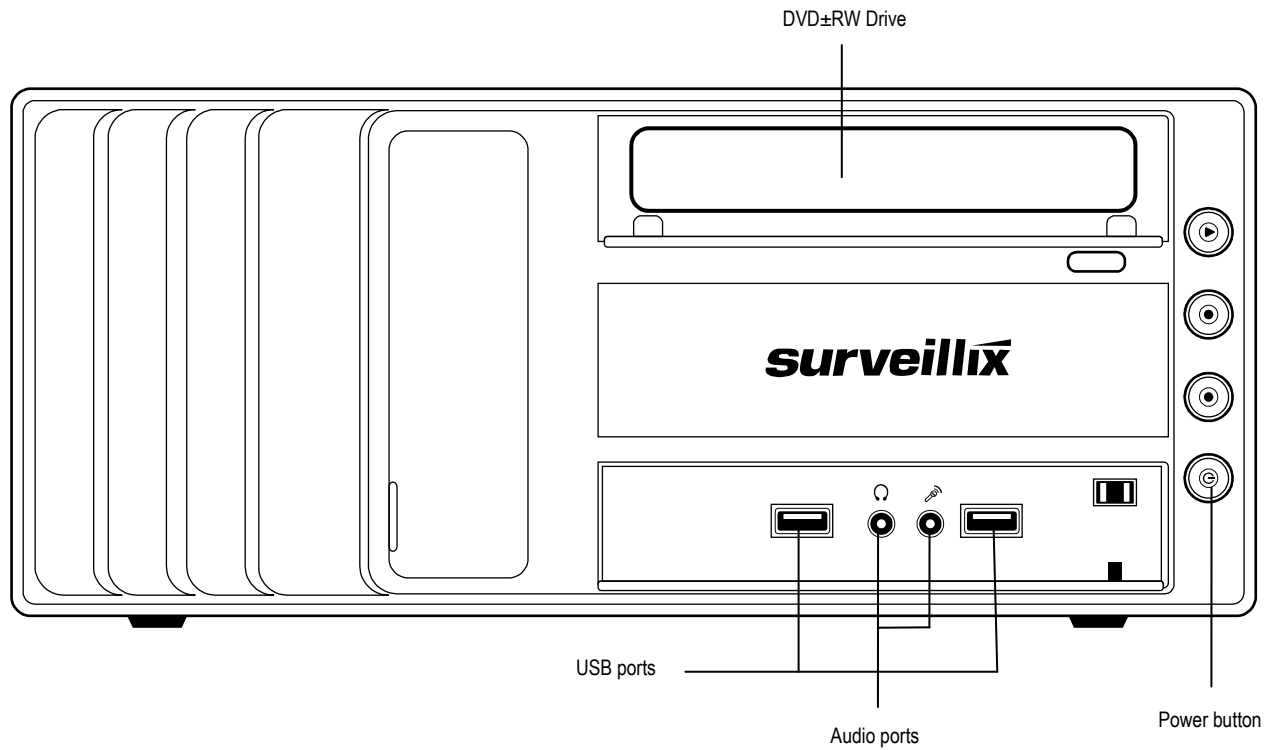
This chapter includes the following information:

- Input / Output Connector Locations
- Front Panel Controls and LEDs
- Rear Panel Connectors

FRONT PANEL CONTROLS

The front panel of the recorder contains the devices that will be commonly used for data removal, retrieval, and backup replacement. The most common components and buttons are shown below.

XVSv

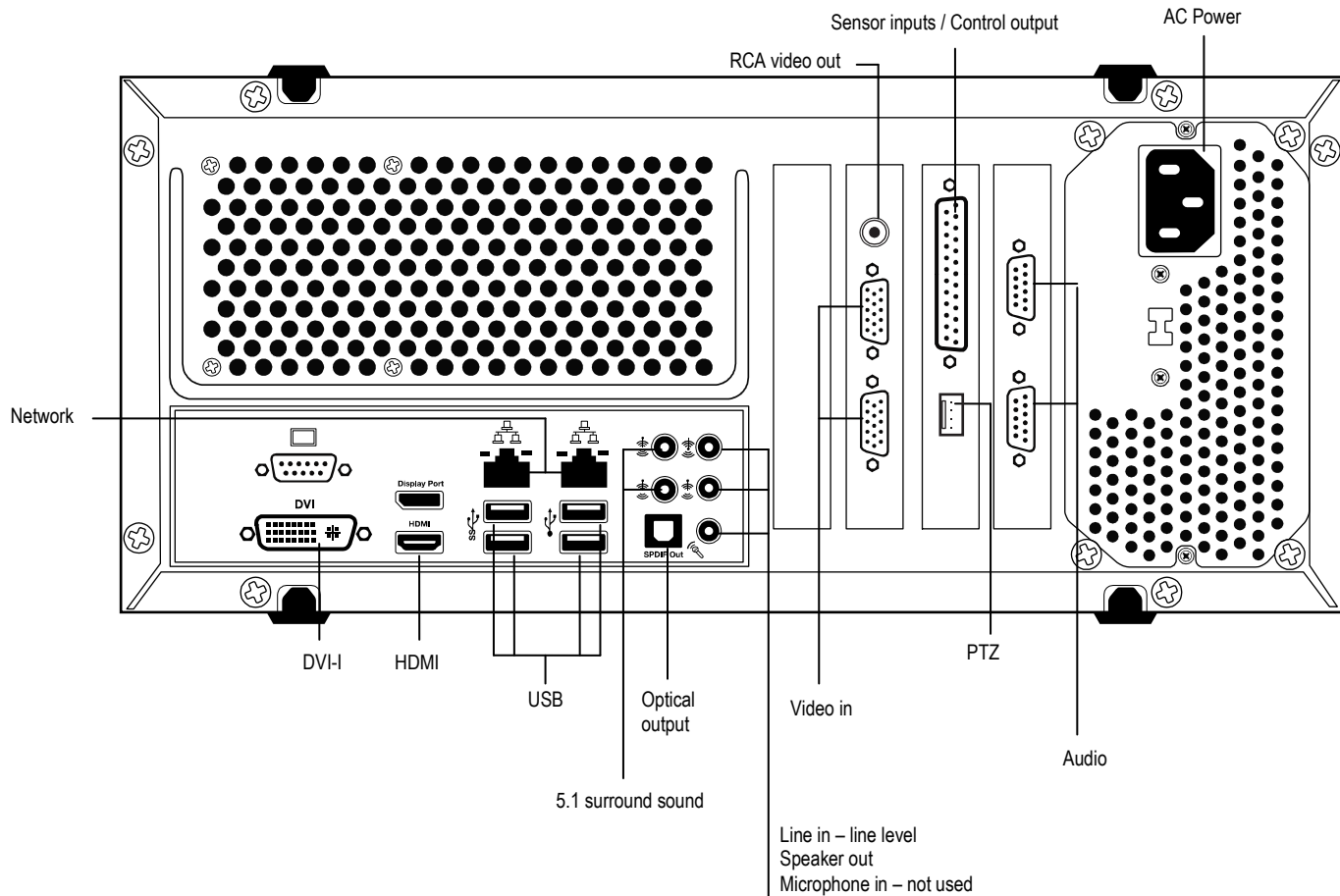


REAR PANEL CONNECTORS

The rear panel of the recorder contains the connectors used to attach cameras, sensors, and relays to the recorder. Below are diagrams that outline the location and description of each connector.

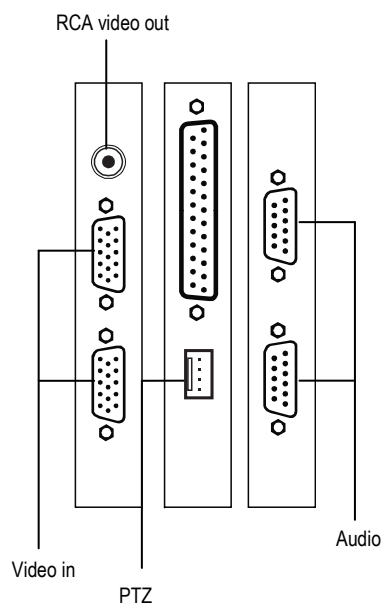
XVSv

16 Channel (240V)



CARD CONFIGURATIONS

240V PPS 16 Channel





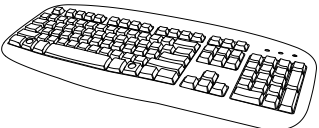
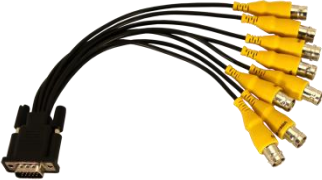



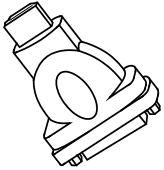

GETTING STARTED

This chapter includes the following information:

- Included Components
- Setting up the DVR Hardware
- Optional Components

IDENTIFYING INCLUDED COMPONENTS

Surveillix recorders come with a mouse, keyboard and selected software and cables. Identify the following components to make sure everything has been properly included with the new DVR. If any of the following items are missing, contact the dealer to arrange a replacement.

 <p>Repair Disc / Software Disc</p>	 <p>Mouse</p>	 <p>Keyboard</p>
 <p>BNC Video Connector Cable (x2)</p>	 <p>Power Adapter</p>	 <p>PTZ Adapter</p>
 <p>8 Channel Audio Input Cable (x2)</p>	 <p>HDMI to DVI-D adapter</p>	 <p>Sensor Input / Connector Output Cable</p>

OPTIONAL COMPONENTS

To fully utilize the recorder's potential; several optional Surveillix components are listed below. Contact the dealer for more information.

UPS UPS Power Backup

UPS Power Backups allow your DVR to remain fully functional even in the event of a power failure. UPS Power Backups also even the fluctuating power current out to provide a consistent, reliable power flow. This creates a stable environment for the DVR and reduces failure.

NP-4PKVM 4 Channel KVM Switch

The 4 Channel KVM switch allows you to have multiple boxes (up to 4) using only one keyboard, mouse and monitor. You can simply switch between the DVRs using the keyboard.

External RAID storage

An external RAID device is used for independent data reliability & provides much greater storage expandability.

Gigabit NIC

Provides support for Dual Nic configurations

SSD

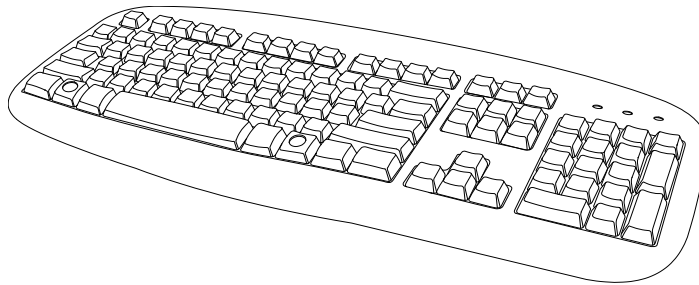
Solid State Drive upgrade for the Operating System Boot drive.

Dual Gigabit NIC

Dual Gigabit Network Adapter with support for Teaming.

KEYBOARD SETUP

To attach the keyboard to the recorder, plug the end of the Keyboard into a USB port located on the back of the machine.



MOUSE SETUP

To attach the mouse to the recorder, plug the end of the mouse into a USB port located on the back of the machine.

The mouse uses a cursor called a pointer. Pointers come in many different shapes but are most commonly shaped like an arrow.

The mouse has two buttons: a left button and a right button. Quickly pressing and releasing one of these buttons is called clicking. Sometimes you will need to double-click – or click the same button twice quickly.

In this manual:

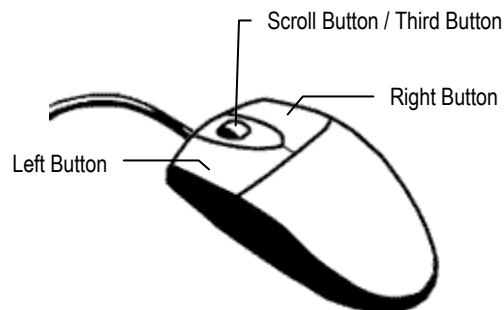
Click means to position the mouse cursor over an item and to single click the left button.

Right click means to position the mouse cursor over an item and to single click the right button.

Double-click means to position the mouse cursor over an item and to click the left button twice.


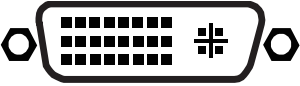
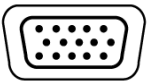

Select means to position the mouse cursor over a radio button, checkbox, or list item and click on it.

The scroll wheel in between the two buttons is used for added navigation functionality. By moving the wheel with index finger (scrolling), quickly move through multiple pages, lines, or windows. The wheel may also function as a third button allowing the user to quickly click or double-click an icon or a selected item



MONITOR SETUP

The recorder has the following connections available to attach a monitor.

	HDMI Output	To TV / Digital Monitor
	DVI -D Output	To TV / Digital Monitor
	VGA Output	To VGA Monitor.
	Display Port Output	To Digital Monitor

Attach the monitor or monitors to the rear of the recorder using the cable supplied by the monitor manufacturer. Refer to the monitor manual for detailed information on how to setup and use it.

Note The monitor must be capable of having a screen resolution of 1024 x 768 and display colors of at least 32 Bit

POWER SETUP



WARNING:

To reduce the risk of electrical shock or damage to the equipment:

Do not disable the power grounding plug.

The grounding plug is an important safety feature.

If the electrical plug you are using does not have a ground plug receptacle contact a licensed electrician to have it replaced with a grounded electrical outlet.

Plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.

Disconnect the power from the computer by unplugging the power cord either from the electrical outlet or the computer.

Connecting a PTZ Camera

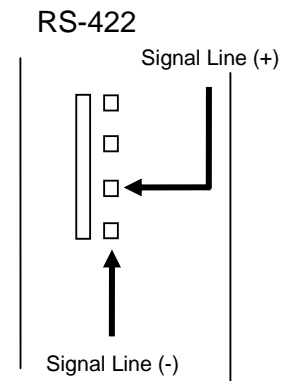
Setting up a PTZ Camera is simple. The recorder comes preassembled with an internal PTZ adapter. The cabling may be run up to 4,000 ft using 22 Gauge Twisted Pair.

It is important to understand how the PTZ connects to the recorder. The recorder outputs an RS-232 signal and converts it to an RS-485 signal which is then sent to the PTZ camera.

Attaching the 4-Pin Adapter

1. Locate the PTZ adapter cable
2. Connect the wires of the PTZ adapter to the PTZ camera. The yellow wire should connect to the RX+ on the camera and the orange wire should connect to the RX-.
3. Connect the other end of the adapter to the XVR unit as shown.
4. Assign the PTZ camera an ID number in PTZ Setup that coincides with the number assigned to the camera. This is normally done utilizing a dip-switch configuration method on the addressable dome.

Example: If the camera is plugged into input number 5, set the PTZ unit to ID number.



TURNING ON THE RECORDER

Once the cables and adapters have been properly connected it is time to turn on the power. To turn on the power follow these steps:

1. Turn on the monitor and any external peripherals (ex. Printers, External Storage Devices, etc.) connected to the recorder.
2. Turn on the Secondary Power Switch located in the rear of the recorder.
3. Turn on the main power switch located on the front of the recorder.

The recorder will run a series of self-tests. After two or three minutes a series of messages may be displayed as the various hardware and software subsystems are activated. Under normal circumstances you should not be asked to respond to these messages. If you are asked to respond to the messages (adding a Printer, Monitor, etc for the first time) follow the instructions carefully.

After this finishes, the Surveillix recorder software should load automatically and bring you to the main screen.

TURNING OFF THE RECORDER

To turn off the recorder, select the Exit button on the main screen and select Power Off. The recorder will safely shutdown, it may take several minutes to shut down completely.


Caution: Always be sure to follow the proper procedures when turning off the power to the recorder. NEVER disconnect the power to the recorder while it is still running or in the process of shutting down. Doing so can cause data loss, file corruption, system instability and hardware failure.

DVR BASICS

This chapter includes the following information:

- Becoming familiar with the Display screen
- Defining Screen Divisions

SETTING THE TIME AND DATE

1. Exit to Windows by clicking **Exit** on the Display screen and then clicking **Restart in Windows Mode**.
2. Click the **Start** button  > **Control Panel**.
3. Click **Date and Time** inside **Control Panel**.
4. Adjust the Date and Time.
5. When finished, click **Apply**, then **OK**, then close all open windows and restart the recorder. Do this by clicking **Start** and selecting **Restart** from the **Shut Down** menu.


ACCESSING THE DVR UTILITY

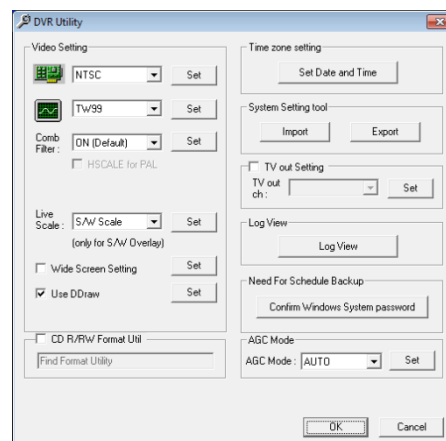
Exporting Settings

Exporting settings can help configure multiple recorders quickly or reconfigure a unit that has been reset to factory defaults. Some things must be kept in mind when using this feature.


You cannot use this function on:

- Recorders that are different models.
- When upgrading from certain software versions. (This feature cannot be used when upgrading from v2.x to v3.x)


1. Exit to Windows by clicking **Exit** on the Display screen then and select **Restart in Windows Mode**.
2. Click the **Start** button  > **All Programs > Surveillix > vFormat**.
3. Click **Export** in the **System Setting tool** section.
4. Select a location to save the settings file and click **Save**. The **DVR Utility** will export the recorder settings and automatically close.



Importing DVR Settings

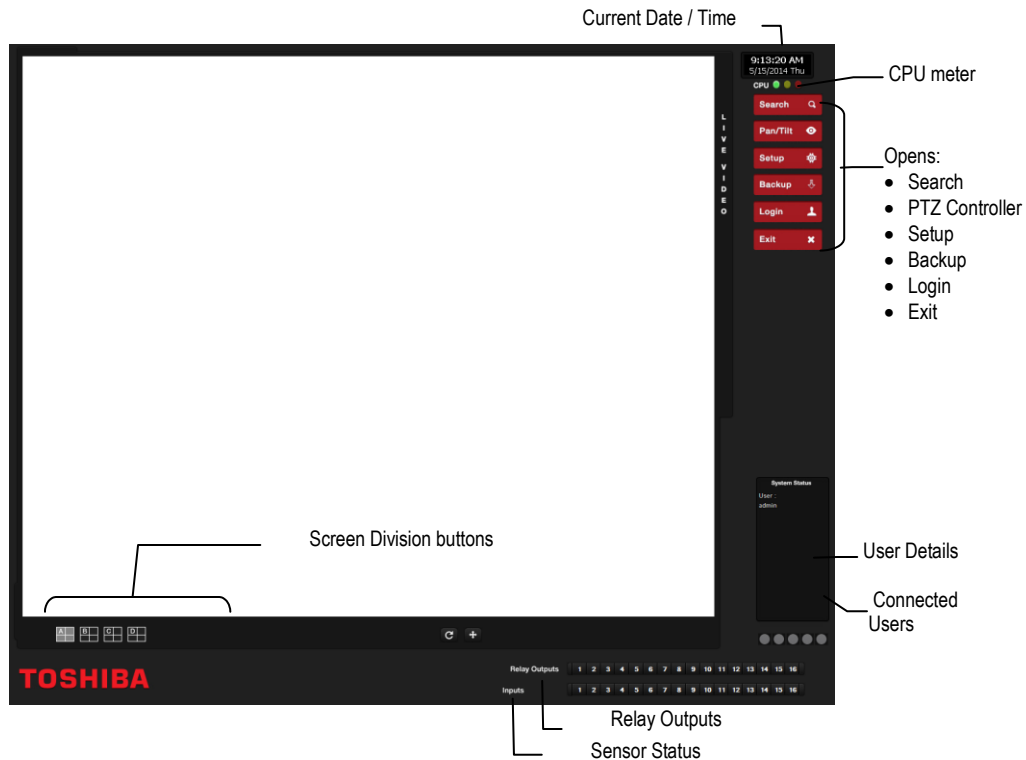
1. Exit to Windows by clicking **Exit** on the Display screen then and select **Restart in Windows Mode**. (See the Display screen section later in this chapter)
2. Click the **Start** button  > **All Programs > Surveillix > vFormat**.
3. Click **Import** in the **System Setting Tool** section.
4. Select the location of the settings file to import and click **Open**.
5. Click **Yes** to import the data file.

Changing Video Format

1. Exit to Windows by clicking **Exit** on the Display screen then and select **Restart in Windows Mode**. (See the Display screen section later in this chapter)
2. Click the **Start** button  > **All Programs > Surveillix > vFormat**.
3. Select the appropriate video setting from the list in the **Video Setting** section—NTSC or PAL.
4. Click **Set**.

DISPLAY SCREEN

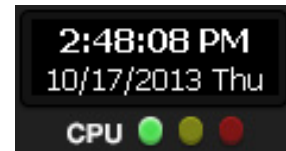
Each time the recorder starts, the program defaults to the Display screen. The following diagram outlines the buttons and features used on the Display screen. You should become familiar with these options as this is the screen that will be displayed the majority of the time.



CPU Meter

Use the CPU meter to monitor the system resources on your recorder.

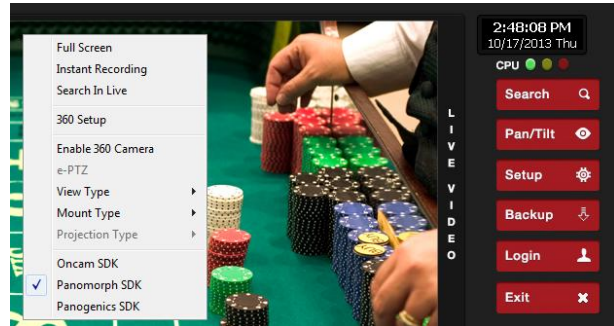
- **GREEN** - System configuration OK
- **YELLOW** - Caution; evaluate system configuration and consider decreasing system loading
- **RED** - System configuration has been exceeded which may affect stability; decrease system loading or upgrade system with CPU performance package



Live Camera Options

Right-click a camera on the Display screen to display these options:

- **Full Screen** – Expand the camera window to the full size of the screen.
- **Instant Recording** – Begin Instant Recording for the selected camera channel.
- **Search In Live** – Rewind or fast-forward video from that camera at the present date and time.
- **360 Setup** – Configure settings for a 360 camera.
- **Enable 360 Camera** – Enable the use of a 360 camera.
- **e-PTZ** – Use the digital PTZ function on a 360 camera
- **View type** – Select the view for a 360 camera
- **Mount Type** – Select the type of mount that matches the location of your 360 camera.
- **Projection type** – Dewarp your 360 camera image in Spherical or Flat view (Panogenics cameras only)
- **Oncam SDK** – Select to dewarp video footage from an Oncam 360 IP camera
- **Panamorph SDK** – Select to dewarp video footage from an Immervision 360 camera
- **Panogenics SDK** – Select to dewarp video footage from an AMG Panogenics 360 IP camera.



Note 360 Setup, Enable 360 Camera, e-PTZ, View Type, Mount Type, Projection Type, all require a 360 camera to function. If you do not have a 360 camera, ignore these functions.

CAMERA VIEW



Recording Status Indicator

The camera status for each camera is displayed in the upper right corner on the Video Display Area. The following are the different states for each camera:



Recording

Displayed when the camera is currently being recorded to the recorder.



Motion Detection

Displayed when a camera (set up for motion detection) detects motion.



Display

Displayed when the camera is currently not being recorded to the recorder.

Special Recording

There are two types of Special Recording. Text is displayed on the camera indicating what type of Special Recording is activated.

SENSOR

Sensor is displayed when a sensor, associated with a given camera, is activated.

INSTANT

Instant Recording is a manual activation of the recording for the selected camera. Regardless of the recording method, Instant Recording will start the camera recording and also flag the video for future searches using the Index Search feature. INSTANT is displayed when a user activates the instant recording option. Right-click the video display to activate and deactivate the Instant Recording option.

EDIT LIVE VIEW CHANNELS

By default, the recorder only allows live video from four network channels at one time on the local server. This protects the processor resources for recording data. The SCS software allows you to view live video from multiple recorders at once and with the same limitations that the recorder has on the number of live IP based video channels. If more than four channels of live video are required on the local server, you can enable the recorder to show up to 16 channels. Be aware that displaying 16 channels of live IP based video is resource intensive and may dramatically impact system performance.

To enable the recorder to view 16 channels of live video:

1. Click **Exit** on the Display screen, and then select **Restart in Windows Mode**.
2. Double-click the **Edit Live View Channels** icon on the desktop.
3. Click **Yes**, and then click **OK**.
4. The live view display will switch to 16 channel mode. To return the recorder to 4 channel mode, repeat steps 2 and 3.
5. Double-click **Surveillix Server** to restart the recorder software.

The live view display will switch to 16 channel mode. To return the recorder to 4 channel mode, run the utility again using the same instructions.

SCREEN DIVISION BUTTONS

Note When viewing live video from Network Cameras, only 4CH will display at one time. If more live view channels are required on the local server, see the Edit Live View Channels instructions.



1st Four Cameras View – Displays cameras 1-4 in the Video Display Area. To return to a different Multi-Camera View, select a different Screen Division option from the Screen Division menu.



2nd Four Cameras View – Displays cameras 5-8 in the Video Display Area. To return to a different Multi-Camera View, select a different Screen Division option from the Screen Division menu.



3rd Four Cameras View – Displays cameras 9-12 in the Video Display Area. To return to a different Multi-Camera View, select a different Screen Division option from the Screen Division menu.



4th Four Cameras View – Displays cameras 13-16 in the Video Display Area. To return to a different Multi-Camera View, select a different Screen Division option from the Screen Division menu.



1st Nine Cameras View – Displays cameras 1-9 in the Video Display Area. To return to a different Multi-Camera View, select a different Screen Division option from the Screen Division menu.



2nd Nine Cameras View – Displays cameras 10-18 in the Video Display Area. To return to a different Multi-Camera View, select a different Screen Division option from the Screen Division menu.



Full Screen – The Full Screen Option allows you to view the Video Display Area using the entire viewable area on the monitor. When this is selected, no menu options are visible. You can activate the Full Screen Option by clicking on the Full Screen button within the Screen Division menu. You can deactivate Full Screen mode by right clicking on the screen.



Auto Sequence – Sequences through the Screen Divisions sets. For example, selecting the 1A and then the Loop button will sequence through 1A, 2A, 3A, 4A and then repeat.

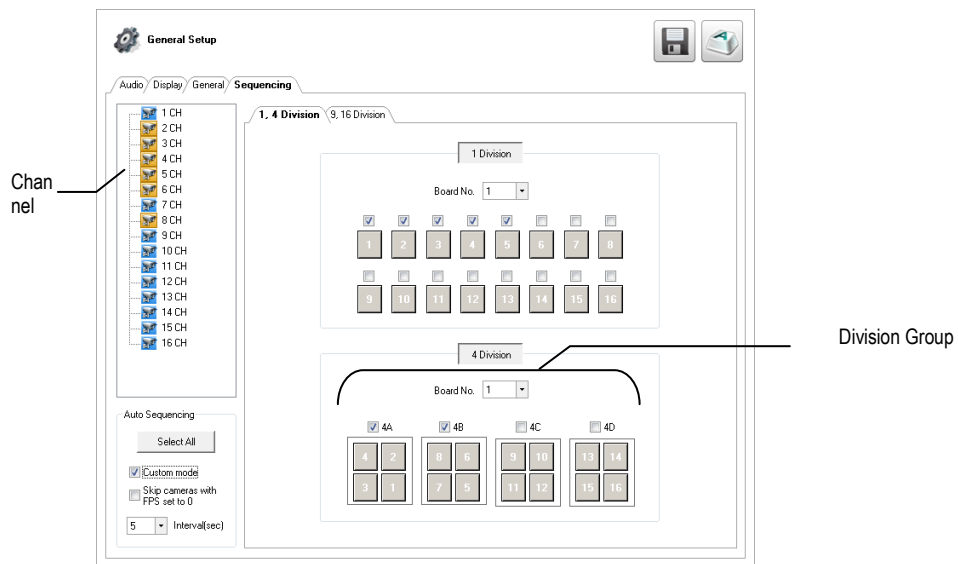
Note Local screen division options are limited to ensure optimal encoding performance.

Custom Live View Divisions

Customize your Live View screen by changing the order of the cameras. Each screen division can be individually customized but a camera can only be displayed once in each group view.

Create custom live view divisions:

1. On the Display screen, click **Setup**, and then click **General Setup**.
2. Click the **Sequencing** tab.
3. Drag and drop cameras from the **Channel List** to the desired location within the **Division Group**.



6. Select the screen intervals you want to display in each division area.
7. Set the **Interval** time (in seconds). This determines how long each sequence screen will appear on the Live display.
8. To save your settings, click **Apply**.

SETUP OPTIONS

This chapter includes the following information:

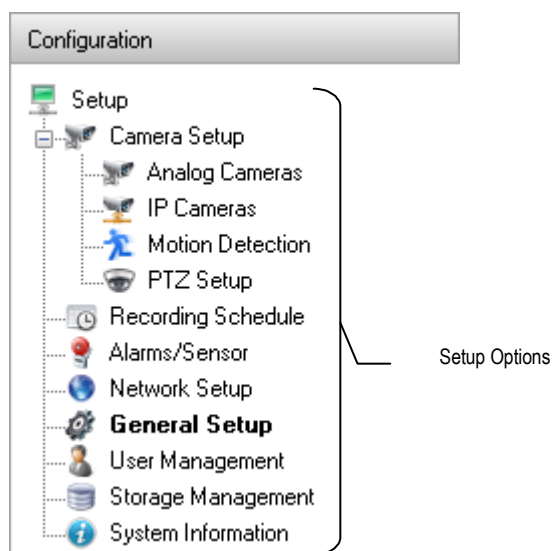
- Setup Overview
- Camera Setup
- Network Video
- Motion
- General
- Frame Setup
- Schedule
- Sensor
- Network
- Administrative
- Information
- PTZ

SETUP OVERVIEW

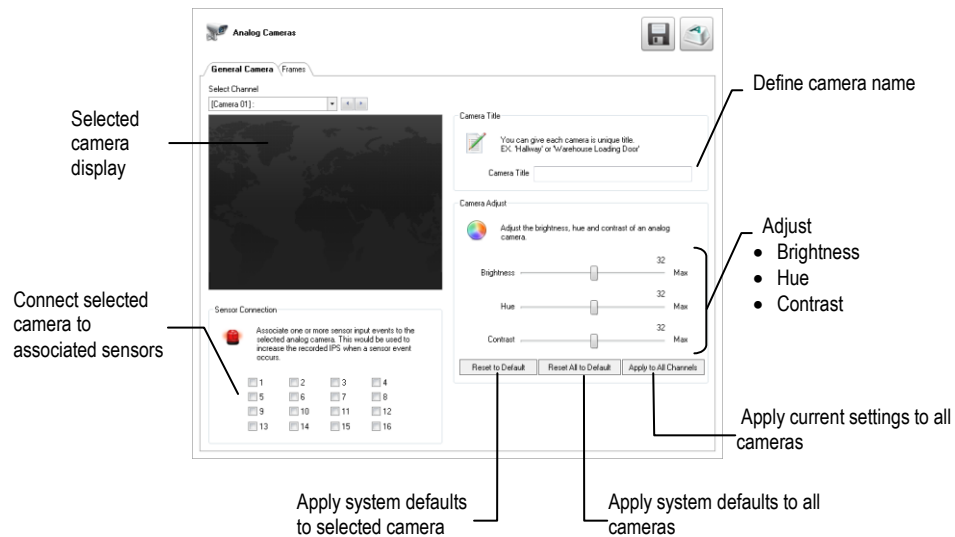
The Setup options allow you to optimize your recorder by adjusting things like camera names, restart schedules, recording schedules and more. It is extremely important that you setup your recorder correctly for several reasons.

- **Recording Schedules** – Increase the amount of pertinent recorded video that is saved on the recorder by optimizing the recording schedule. Optimize the type of recording done by adding motion detection to this as well, again increasing the amount of useful video.
- **Camera Naming** – Name each camera so the location can be easily identified and include any other pertinent information that may be helpful when viewing it on the Video Display Area.
- **Configure Network Cameras** – Connect to and configure cameras that are available on the network the recorder is connected to.

SETUP MENU OVERVIEW



ANALOG CAMERA SETUP



Select Channel

Select the camera channel to be edited.

Selected Camera Display

View the live camera feed from the selected camera channel.

Sensor Connection

Specify which sensors to associate with the camera selected.

Camera Name

Specify the name of the selected camera.

Set Up New Camera

1. Use a BNC cable to connect your camera to the rear of the recorder chassis.
2. On the Display screen, click **Setup**.
3. Click **Camera Setup**, and then click **Analog Cameras**.
4. Click the **General Camera** tab.
5. Select the channel that corresponds with the new camera from the **Select Channel** list.
6. Enter a name for the camera in the **Camera Title** field.
7. Adjust the **Brightness**, **Hue** and **Contrast** if necessary.
8. Select the appropriate **Sensor Connection** camera.
9. Click **Apply** to save your settings.

FRAME SETUP

The Frame Setup menu allows configuration of the Frames Per Second (FPS), resolution, quality, and sensitivity of camera channels. When configuring the FPS sliders, the blue slider represents the FPS the recorder will record during intensive recording and have available for transmitting to remotely-connected systems. The Red Slider represents the FPS that will be recorded by the recorder under normal recording conditions.

Note The total FPS of all blue sliders may not exceed the recording FPS of the recorder (based on model). The FPS of a red slider may not exceed that of the blue slider for the same channel.

Note If MJPEG is selected as the recording codec, the dual sliders allow configuration of the recorder to record at a lower FPS while still being able to view live video and transmit video at a higher FPS to remote connections. For example: If a camera channel is set to 25 FPS (blue) and 7 FPS (red), the recorder will record at 7 FPS and users viewing live video at the recorder or remotely can receive up to 25 FPS.

Maximum FPS Table

FPS Breakdown for Each Resolution

Resolution	CCTV	x480 model	x240 model
360x240	1CIF	480 PPS	240 PPS
720x240 *	2CIF	240 PPS	120 PPS
720x480 **	4CIF	120 PPS	60 PPS

* Frames recorded in 720 x 240 are twice the size of the standard 360 x 240. When recording at 720 x 240, each frame assigned to the channel will use two of the local frames available.

** Frames recorded in 720 x 480 are four times the size of the standard 360 x 240. When recording at 720 x 240, each frame assigned to the channel will use four of the local frames available.

Frame Setup (XVSe & XVSv)

Reset to Default Settings

Reset to Default

Total FPS is 66 / 36

Compression Codec

Recording Resolution

	Codec	Resolution	Quality	Sensitivity
CH 1	MJPEG	360 x 240	Normal	7
CH 2	MJPEG	360 x 240	Normal	7
CH 3	MJPEG	360 x 240	Normal	7
CH 4	MJPEG	360 x 240	Normal	7
CH 5	MJPEG	360 x 240	Normal	7
CH 6	MJPEG	360 x 240	Normal	7

Camera Channel

Number of Recording Frames Selected

Frame Select

Video Quality

Sensitivity

Note The red FPS record slider cannot exceed the blue FPS capture slider

Note The software will not allow the maximum available frames to be exceeded.

Note Using H.264 software compression significantly increases the processing load on the Surveillix DSvE and XVSe platforms. If maximum analog PPS is desired in addition to IP video recording or multiple remote clients, Surveillix engineering recommends the addition of the upgraded system CPU (DVR-CPU UPG).

Frame Select

Blue Slider: Set the frame rate to be recorded during intensive recording and available for viewing on a remote client PC.

Red Slider: Set the frame rate recorded by during normal recording.

Resolution

Adjusting resolution will affect the total number of frames per second that are available.

Codec

Select the appropriate codec for each camera: **MJPEG**, **MPEG-4**, or **H.264**.

Video Quality

Lower quality video has a smaller file size but appears more pixilated.

Sensitivity

Set the Keyframe refresh rate. Adjusting this setting can result in poor video quality.

Note Do not change the default setting unless instructed by a system administrator.

NETWORK CAMERA SETUP

Connect IP cameras to your recorder using a network switch, which is connected to the network port on your recorder. By default, your recorder can display 4 IP camera channels in the Display screen. To change this setting, see the Edit Live View Channels section.

Connecting a Network Device

The screenshot shows the 'IP Cameras' setup window. It has two tabs: 'Camera Setup' and 'Camera Status and Information'. The 'Camera Setup' tab is active and contains a section titled 'Network Cameras Currently in Use' with a table. Below the table are checkboxes for 'Use Global Camera Setup' and a 'Manually Add Camera' button. The 'Device Search' tab is also visible and contains a section titled 'Advanced Camera Setup' with 'Select All' and 'Dismiss all' buttons, a table, and 'Find Camera' and 'Add Selected' buttons. At the bottom, there is a 'Global Credentials' checkbox and input fields for 'User Name' and 'Password'.

IP Cameras

Camera Setup | Camera Status and Information

Network Cameras Currently in Use

Channel	Device Name	Model	User Name	Password	Port	Record Stream	Resolution	Capture

☐ Use Global Camera Setup **Manually Add Camera**

Device Search | Advanced Camera Setup

Select All **Dismiss all**

Device Name	Driver/Type	Model	IP	Mac Address	User Name	Password	Port

Find Camera **Add Selected** ☐ **Global Credentials** User Name : Password :

Use Global Camera Setup – Change camera quality, frame rate, and resolution settings for all connected cameras by enabling this function and making changes to one camera. This function is only supported by ONVIF cameras.

Global Credentials – When using Global Camera Setup, select Global Credentials, and then type the User Name and Password for your selected cameras to add them to your system.

Select All – Select all of the cameras included in the Device Search list.

Dismiss All – De-select all the cameras you have selected in the Device Search list.

Connecting Manually

1. On the Display screen, click **Setup**.
2. Click **Camera Setup**, and then click **IP Cameras**.
3. Click **Manually Add Camera**.
4. Select the **Vendor** and **Model** of your network device from the **Device Type** list.
5. Type a **Device Name**.
6. Type the **IP/URL** address, **Port#**, **User ID** and **Password** of the device.
7. Click **Add**.
8. Double-click in the **Channel** field, and then select the Channel you want to assign to this camera.
9. Click **Apply**.

Note Audio is not supported when using ONVIF as the Driver/Type when connecting to IP cameras. If audio is needed, select the native integration method to connect the camera.

Connecting with Find Cameras

1. On the Display screen, click **Setup**.
2. Click **Camera Setup**, and then click **IP Cameras**.
3. Click **Find Camera** to automatically find all connected Network cameras.
4. Select the check box next to your desired camera.
5. Type the **User ID** and **Password** of the device.
6. Click **Add Selected**.
7. The camera will appear in the Camera Setup tab.
8. Double-click in the **Channel** field, and then select the Channel you want to assign this camera to.
9. Click **Apply**.

Naming Camera Channels

Surveillix recommends assigning a descriptive name to each camera channel for easy identification of where the camera is located. To name your IP camera channels, follow these instructions.

1. On the Display screen, click **Setup**.
2. Click **Camera Setup**, and then click **IP Cameras**.
3. Click the **Camera Setup** tab.
4. Double-click the **Device Name** column for the camera you want to name.
5. Type a name for your camera.
6. Click **Apply** to save the name.

Assigning Dual Streams

Dual stream support enables you to take advantage of two different streams from an IP camera. One stream can be high definition forensic video, while the other stream can be a lower resolution for live display. This allows SCS or Remote Viewer software to display more cameras while utilizing lower bandwidth and less CPU usage.

The second stream is used for motion detection in the server, which lightens the processing load for centrally-managed motion detection configurations

Dual streaming functions are limited to cameras that support this feature.

1. On the Display screen, click **Setup**.
2. Click **Camera Setup**, and then click **IP Cameras**.
3. Click the **Camera Setup** tab.
4. Choose which camera you want to configure, and double-click the **Record Stream** column.
5. Select which **Stream** you want to assign to be recorded.
6. Double-click the **Transmit Stream** column and choose the appropriate stream for remote viewing.
7. Click **Apply** to save your selections.

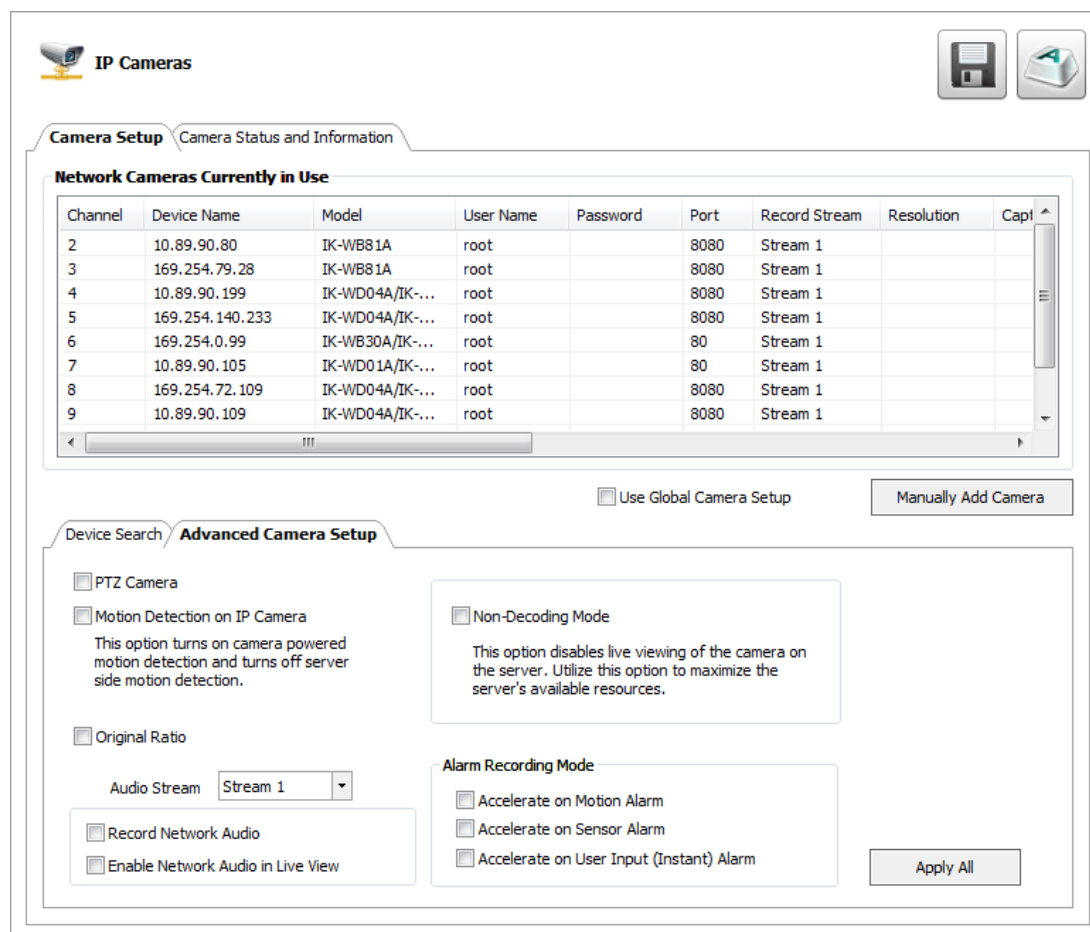
Removing a Camera

To remove a camera from your system, follow these instructions.

1. On the Display screen, click **Setup**.
2. Click **Camera Setup**, and then click **IP Cameras**.
3. Click the **Camera Setup** tab.
4. Right-click the camera you want to remove on the **Network Cameras Currently in Use** list, and then click **Remove Device**.
5. Click **Yes** to finish removing the camera.
6. Click **Apply** to save your settings.

Assigning Audio Channels to a Network Device

1. In the Display screen, click **Setup**.
2. Click **IP Cameras**.
3. Click the **Camera Setup** tab.
4. Click the **Advanced Camera Setup** tab.



The screenshot shows the 'IP Cameras' management interface. At the top, there's a 'Camera Setup' tab and a 'Camera Status and Information' tab. Below the tabs is a table titled 'Network Cameras Currently in Use' with columns: Channel, Device Name, Model, User Name, Password, Port, Record Stream, Resolution, and Capt. The table lists 9 cameras. Below the table are checkboxes for 'Use Global Camera Setup' and a 'Manually Add Camera' button. The 'Advanced Camera Setup' tab is selected, showing various configuration options. On the left, there are checkboxes for 'PTZ Camera', 'Motion Detection on IP Camera' (with a description), and 'Original Ratio'. Below these is an 'Audio Stream' dropdown set to 'Stream 1'. In the center, there's a 'Non-Decoding Mode' checkbox with a description. On the right, there's an 'Alarm Recording Mode' section with checkboxes for 'Accelerate on Motion Alarm', 'Accelerate on Sensor Alarm', and 'Accelerate on User Input (Instant) Alarm'. At the bottom right is an 'Apply All' button.

Channel	Device Name	Model	User Name	Password	Port	Record Stream	Resolution	Capt
2	10.89.90.80	IK-WB81A	root		8080	Stream 1		
3	169.254.79.28	IK-WB81A	root		8080	Stream 1		
4	10.89.90.199	IK-WD04A/IK-...	root		8080	Stream 1		
5	169.254.140.233	IK-WD04A/IK-...	root		8080	Stream 1		
6	169.254.0.99	IK-WB30A/IK-...	root		80	Stream 1		
7	10.89.90.105	IK-WD01A/IK-...	root		80	Stream 1		
8	169.254.72.109	IK-WD04A/IK-...	root		8080	Stream 1		
9	10.89.90.109	IK-WD04A/IK-...	root		8080	Stream 1		

☐ Use Global Camera Setup Manually Add Camera

Advanced Camera Setup

☐ PTZ Camera

☐ Motion Detection on IP Camera
This option turns on camera powered motion detection and turns off server side motion detection.

☐ Original Ratio

Audio Stream: Stream 1

☐ Record Network Audio

☐ Enable Network Audio in Live View

☐ Non-Decoding Mode
This option disables live viewing of the camera on the server. Utilize this option to maximize the server's available resources.

Alarm Recording Mode

☐ Accelerate on Motion Alarm

☐ Accelerate on Sensor Alarm

☐ Accelerate on User Input (Instant) Alarm

Apply All

5. Select the camera you want to record audio from in the **Network Cameras Currently in Use** field.
6. Select **Record Network Audio**.
7. To be able to hear audio from the recorder, select **Enable Network Audio in Live View**.
8. Click **Apply** to save your settings.

Alarm Recording Mode

Set your camera to trigger Intensive Recording via Motion detection, Sensor Alarms, or user-instigated Instant Alarm.

1. On the Display screen, click **Setup**.
2. Click **Motion Detection**, and then click the **Etc.** tab.
3. Select your desired camera channel from the **Select Channel** list.
4. Select **Enable Motion Detection on Continuous Recording**.
5. On the Configuration menu tree, click **IP Cameras**.
6. Click the **Camera Setup** tab.
7. Click the **Advanced Camera Setup** tab.

The screenshot shows the 'Advanced Camera Setup' configuration window. It has a 'Device Search' tab and an 'Advanced Camera Setup' tab. The 'Advanced Camera Setup' tab is active and contains several settings:

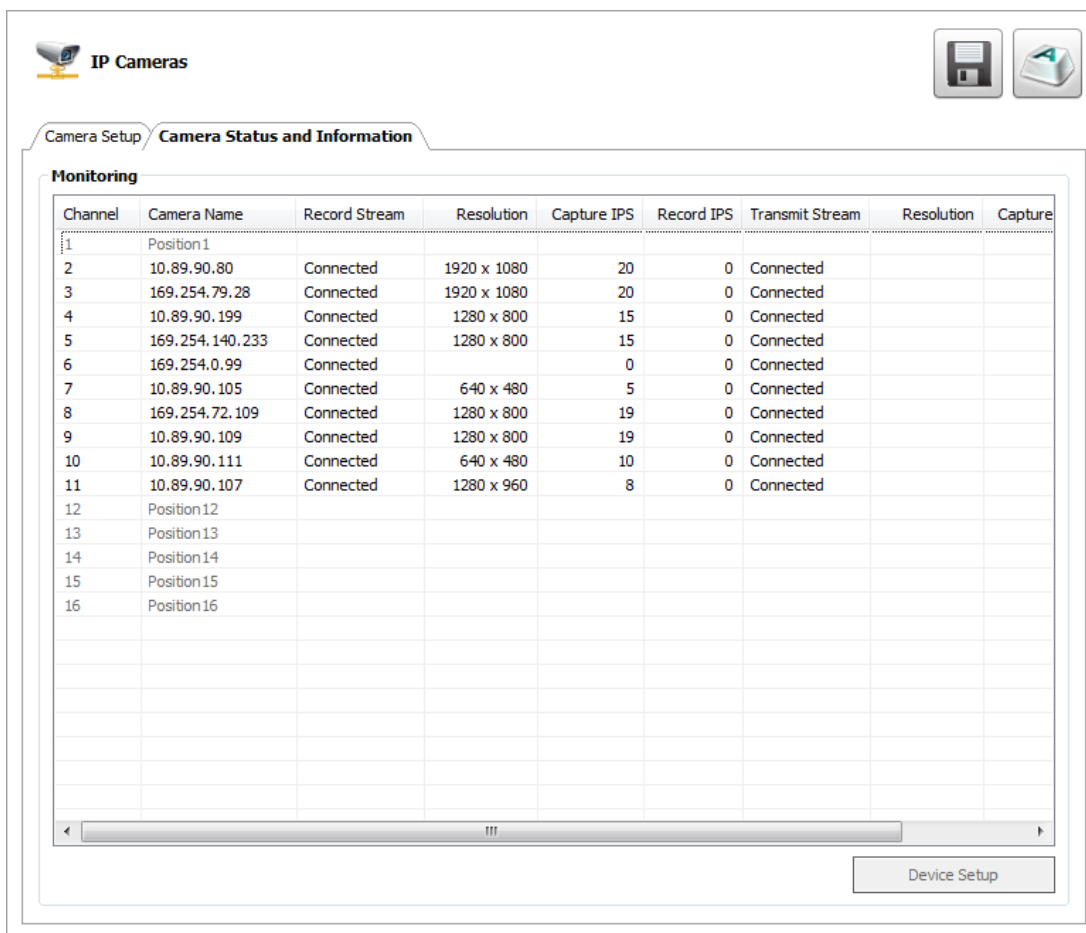
- ☐ PTZ Camera
- ☐ Motion Detection on IP Camera
This option turns on camera powered motion detection and turns off server side motion detection.
- ☐ Original Ratio
- Audio Stream: Stream 1 (dropdown menu)
- ☐ Record Network Audio
- ☐ Enable Network Audio in Live View
- ☐ Non-Decoding Mode
This option disables live viewing of the camera on the server. Utilize this option to maximize the server's available resources.
- Alarm Recording Mode**
 - ☐ Accelerate on Motion Alarm
 - ☐ Accelerate on Sensor Alarm
 - ☐ Accelerate on User Input (Instant) Alarm
- Apply All** button

8. Select the camera you want to record audio from in the **Network Cameras Currently in Use** field.
9. Select your desired Intensive **Recording Mode (Accelerate on Motion Alarm, Accelerate on Sensor Alarm, or Accelerate on User Input (Instant) Alarm)**.
10. Click **Apply** to save your settings.

Note When using H.264 codec, your recorder will capture iFrames at a normal recording rate, and increase to full frames for Intensive Recording.

Camera Status and Information

The Camera Status and Information tab displays information on all cameras connected to the recorder.



IP Cameras

Camera Setup **Camera Status and Information**

Monitoring

Channel	Camera Name	Record Stream	Resolution	Capture IPS	Record IPS	Transmit Stream	Resolution	Capture
1	Position1							
2	10.89.90.80	Connected	1920 x 1080	20	0	Connected		
3	169.254.79.28	Connected	1920 x 1080	20	0	Connected		
4	10.89.90.199	Connected	1280 x 800	15	0	Connected		
5	169.254.140.233	Connected	1280 x 800	15	0	Connected		
6	169.254.0.99	Connected		0	0	Connected		
7	10.89.90.105	Connected	640 x 480	5	0	Connected		
8	169.254.72.109	Connected	1280 x 800	19	0	Connected		
9	10.89.90.109	Connected	1280 x 800	19	0	Connected		
10	10.89.90.111	Connected	640 x 480	10	0	Connected		
11	10.89.90.107	Connected	1280 x 960	8	0	Connected		
12	Position12							
13	Position13							
14	Position14							
15	Position15							
16	Position16							

Device Setup

1. In the Display screen, click **Setup**.
2. Click **IP Cameras**.
3. Click the **Camera Status and Information** tab.

DVR Registration and Upgrade

Have the following information available before registering the DVR upgrade.

Product Serial Number: This may be the Product Serial Number displayed on the product sticker on the left side of the recorder; or the unique Product Serial Number provided with the purchase of additional channel licenses.

System ID: The System ID is a number that is generated by the recorder. This is a unique code generated using the MAC address of the recorder.

Locating the System ID

1. On the Display screen, click **Setup**.
2. Click **IP Cameras**.
3. Click the **License** tab.

License Information

System ID

License Key

Channel Connection License

License Key	Total	Used	Free

Obtaining the License Key

1. Open an Internet browser and go to: <http://register.surveillixdvr.support.com>
2. Enter the Product Serial Number and System ID.
3. Click **Submit**.
4. Verify the information, and click **Next**.
5. The Unlock Code provided will need to be entered into the License Key field on the recorder.

Note Both the System ID and the Unlock Code are case sensitive.

Note We recommend printing the registration page with the Unlock Code for later reference.

Unlocking the Upgrade

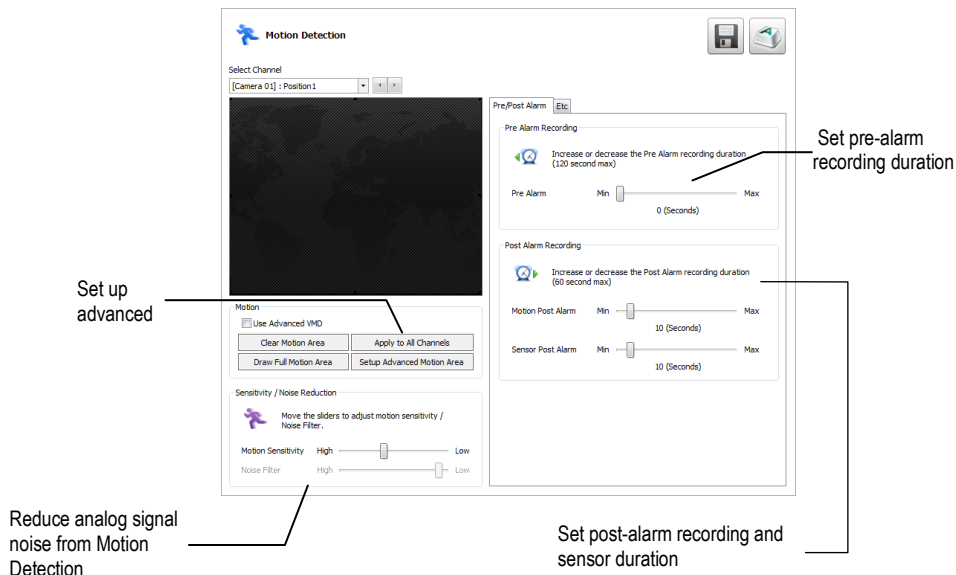
1. Return to **Setup > Network Cameras > License**.
2. Enter the Unlock Code generated by the Registration Site into the **License Key** box.
3. Click **Register** and confirm that the new License Key is listed in the **Channel Connection License** box.
4. Click **OK**.
5. Click **Apply**.
6. Click **Exit Setup**.

Unlocking Additional Network Devices

Follow the instructions above for Registration and Upgrade to unlock any additional network devices.

MOTION DETECTION SETUP

The recorder allows the user to adjust several different Motion Settings and create motion detection areas.

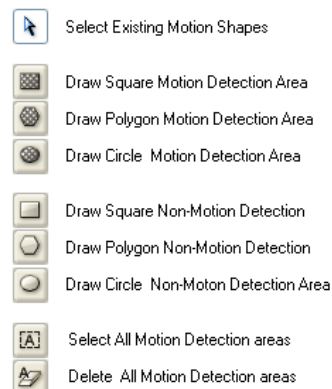


Create a Motion Area

1. On the Display screen, click **Setup**.
2. Click **Motion Detection**.
3. Select a camera from the **Select Channel** list.
4. Select **Detect Detail Motion Area**.
5. Click **Clear Motion Area**.
6. Click **Setup Advanced Motion Area**.
7. Click a **Motion Detection Area** shape button.
8. Drag the mouse over the camera image.

Note To create a polygon shape, click the mouse at each point and double-click to close the shape.

9. Click **OK**.
10. Move the sliders to adjust motion sensitivity and the noise filter.
11. Define the pre-alarm and post-alarm recording time for a motion event.



Pre Alarm Recording – 0 - 120 Seconds [The number of seconds the recorder records before motion is detected—to ensure any motion occurring between I-frames is captured, set to a value greater than 0]

Post Alarm Recording – 0 - 120 Seconds [The number of seconds the recorder records after it stops detecting motion]

Etc.

Additional motion detection configuration options are found on the Etc. tab. Use this tab to set a camera channel to appear at full screen in the Display screen when a motion or sensor event is detected. You can also set your recorder to enable motion detection even during continuous recording, or play an audio warning when an alarm event is detected.



Note It is not recommended to enable Full Screen Pop Up on Motion for all channels (either manually, or by clicking **Apply to All Channels**). This will cause performance problems.

PTZ CAMERA SETUP

PTZ cameras can be configured and controlled using the Surveillix recorder software. For instructions on configuring and installing your PTZ camera, refer to the camera manual.

Enabling an Analog PTZ Camera

1. Ensure that you have properly connected your analog PTZ camera to the recorder.
2. On the Display screen, click **Setup**.
3. Click **Camera Setup**, and then click **PTZ Setup**.
4. Click **Select Channel**, and then click the analog channel you want to enable as a PTZ camera.
5. Click **Enable Pan Tilt Connection**.
6. Type the appropriate **Protocol**, **Port**, **Baud Rate**, **Parity**, **Data Bits** and **Stop Bits** for your analog PTZ camera. These must be the same settings that have been configured on the camera itself.
7. Set the appropriate **General** and **Preset/Tours** options.
8. Click **Apply** to save your settings.

Note For more information regarding creating preset positions, PTZ tour schedules, and controlling your PTZ camera, please refer to the Pan/Tilt/Zoom chapter of this manual.

Enabling an IP PTZ Camera

1. Ensure that you have properly connected your IP PTZ camera to the network.
2. On the Display screen, click **Setup**.
3. Click **IP Cameras**, and then click **Advanced Camera Setup**.
4. Select the IP camera from the **Network Cameras Currently in Use** list.
5. Select **PTZ Camera**.
6. Click **Apply** to save your settings.

Using the Graphical PTZ Controller

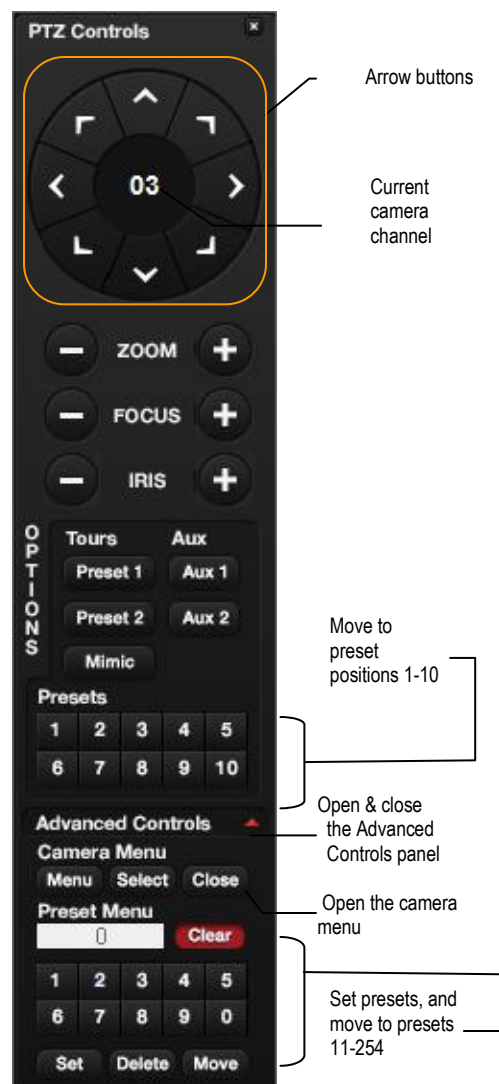
1. In the Display screen, click **Pan/Tilt**.
2. Click the viewing area of the PTZ camera you want to control.
3. Use the Arrow buttons to control the direction of the PTZ camera.
4. To select a new camera, click the video display of a different camera on the Display screen display.

Note Eight directions are available only for select cameras. Only four of the PTZ Control buttons work for all protocols (UP, DOWN, LEFT, RIGHT).

Note The Advanced menu panel on the graphical PTZ controller can be used to set PTZ preset positions (on supported cameras), as well as move to presets up to 254.

5. To exit the Graphical PTZ Controller, click **Pan/Tilt** again.

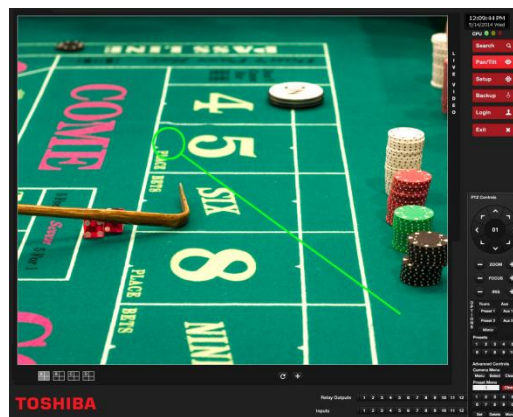
Note To access the OSD menu on Toshiba PTZ cameras, type **95** in the **Preset Menu** field, and then click **Set**.



Using the On-Screen Compass

1. On the Live screen, click **Setup**.
2. Click **PTZ Setup**.
3. Select the **Camera Channel** of the PTZ camera you want to enable Onscreen Compass control for.
4. In the **General** tab, select **Onscreen Compass**.
5. Click **Apply**.
6. Close the Setup window to return to the Live screen.
7. Click **Pan Tilt**.
8. Control the PTZ camera by clicking and dragging the mouse on the screen in the desired direction.

Note A green line will appear to show the direction in which the PTZ camera will move. The shorter the line, the less the PTZ will move. The longer the line, the more the PTZ will travel in the specified direction.

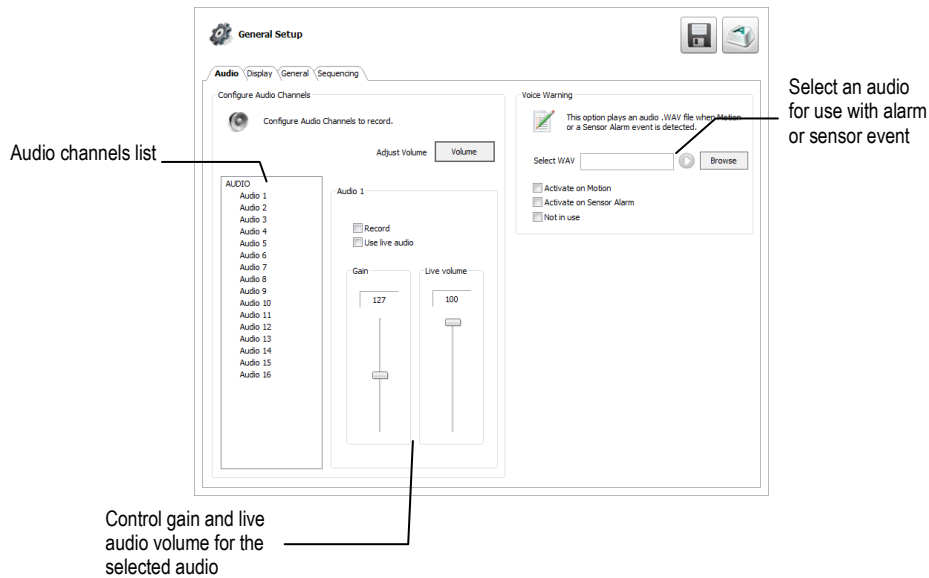


GENERAL SETUP

To access the General Setup window, click **Setup** in the Live screen, and then click **General Setup**.

Audio

The Audio tab allows you to configure audio channels, audio playback, and set a voice warning.



Configure Audio Channels

System Volume

1. Click **Volume** to adjust the volume of your system.
2. Use the slider, enter a value, or click **Mute** to disable audio playback.
3. Click **OK**.

Audio Channels

1. Select an **Audio Chanel**.
2. Select **Record** and **Use Live Audio**, as desired.
3. Adjust the gain and **Live Volume** for each channel, depending on your desired output and microphone sensitivity.
4. Click **Apply** to save your settings.

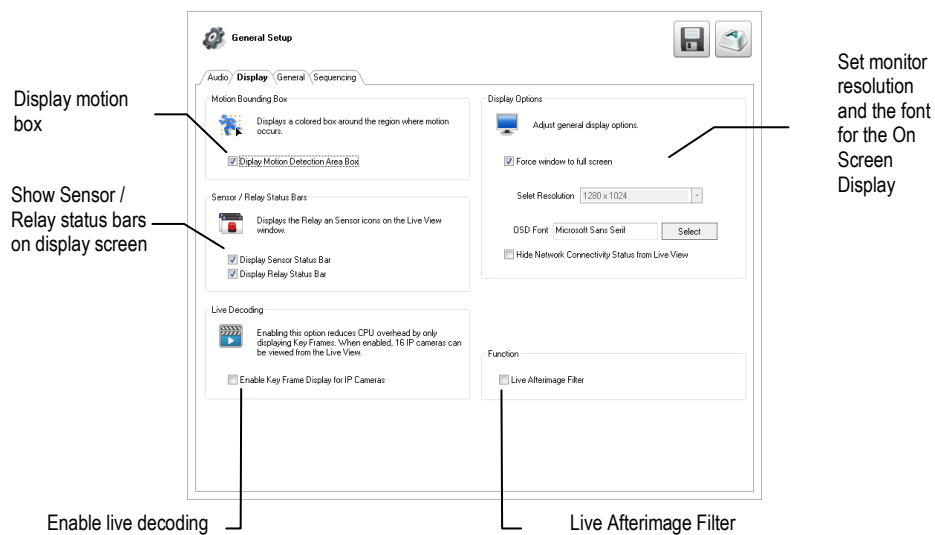
Voice Warning

The recorder allows users to play a sound file when either a Motion event or Sensor event occurs. This file can be a custom created sound file that is unique to the application. The selected WAV file is played through speakers attached to the recorder.

1. Click **Browse**, and then locate your .wav file.
2. Click **Play** to test the file.
3. Select **Activate on Motion** or **Activate on Sensor Alarm** to activate this warning whenever that event occurs.
4. Click **Apply** to save your settings.

Display

The Display tab allows you to control the on-screen appearance of your recorder, including the resolution and configuration of multiple monitors.



Motion Bounding Box – Select **Display Motion Detection Area Box** to see a colored boundary highlighting the area motion occurs.

Sensor / Relay Status Bars – Select **Display Sensor Status Bar** or **Display Relay Status Bar** to see icons when sensors or relays are activated.

Live Decoding – Select **Enable Key Frame Display for IP Cameras** to reduce the processing load by only displaying key frames.

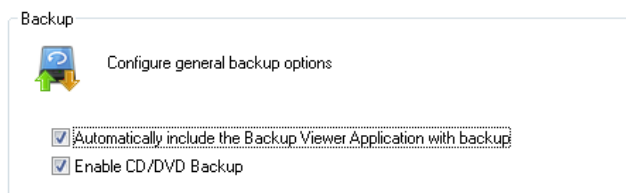
Live Afterimage Filter – Select **Live Afterimage Filter** to reduce motion blur in images from analog cameras if necessary.

Display Options

1. To allow the display resolution to automatically adjust to the resolution of any monitor, select **Force Window to Full Screen**.
2. To manually select a resolution, clear **Force Window to Full Screen**, and then click **Select Resolution**.
3. To change the font of your On Screen Display, click **Select**.
4. Select your desired **Font** and **Size**. Select **Bold** if desired.
5. When you have selected your font, click **OK**.
6. Select **Hide Network Connectivity Status from Live View** if desired.
7. Click **Apply** to save your settings.

General

Use the General tab to configure your overall backup options.



Automatically Include the Backup Viewer Application with Backup – Disabling this option will require Backup Viewer to be manually installed on a computer before viewing the video.

Enable CD/DVD Backup – Disabling this option will allow only USB backup from this recorder.

Sequencing

The Sequencing tab allows you to set the parameters for viewing groups of screens in sequence in the Live View.

Auto Sequence

Auto Sequencing is available either in the Display screen when Auto Sequencing has been enabled. Auto Sequencing conveniently displays video channels at specified intervals and sequences through each selected channel.

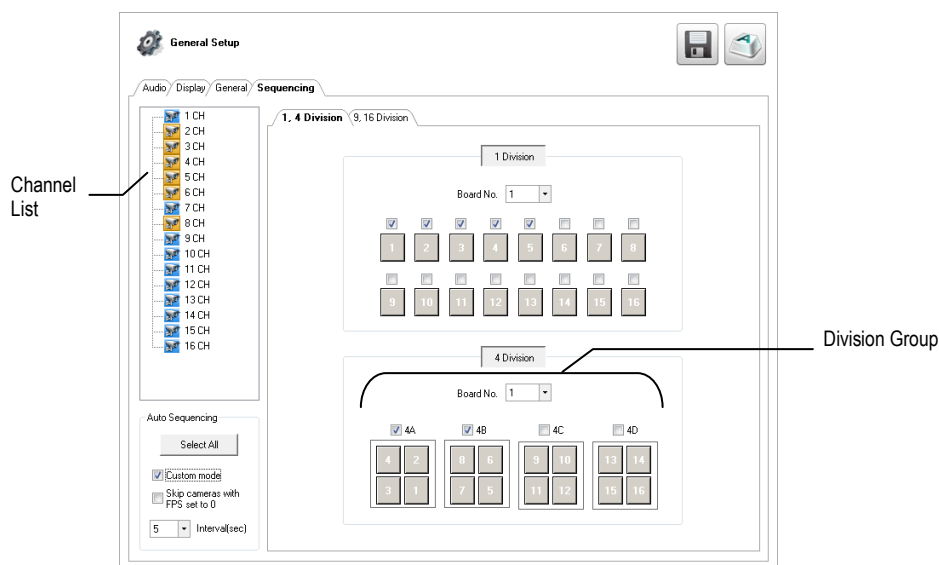
Custom Mode – Create non-standard screen division layouts.

Skip Cameras with FPS Set to 0 – Sequence skips cameras with no video signal.

Create Custom Auto Sequence

Each screen division can be individually customized but a camera can only be displayed once in each group view. All selected screen divisions will be shown when Auto Sequence is enabled on the Live View. Be sure to clear any screen division you do not want to be displayed during Auto Sequence viewing.

1. On the Display screen click **Setup**, and then click **General Setup**.
2. Click the **Sequencing** tab.
3. Drag and drop cameras from the **Channel List** to the desired location within the **Division Group**.



4. Select the screen intervals you want to display in each division area.
5. Set the **Interval** time (in seconds). This determines how long each sequence screen will appear on the Live display.
6. To save your settings, click **Apply**.

Note Screen divisions for 9-16 channels will always be visible, even if your recorder has only 8 channels. If you have an 8 channel recorder, channels 9-16 will not be visible on the Live screen.

ALARMS / SENSOR

Use the Alarms/Sensor menu to configure your alarms, sensors, and relays. To access the Alarms/Sensors Setup screen, click **Setup** on the Live screen, and then click **Alarms/Sensor**.

Alarms

Intensive on Recording – Enable this function to increase the frame rate and resolution for a camera if an alarm or sensor is activated, or if motion is detected.

Video Loss Alarm – Determine how the recorder will respond if a camera channel loses video. The recorder can beep, the loss can be added to the System Log, or you can activate an external alarm.

Login Failure – Enable this function for the recorder to beep continuously in response to a failed login attempt. Only an authorized login will stop the beeping.

Note If **Video Loss Alarm** is enabled, do not use Control Output 16 for other purposes. (For 8-channel models, do not use Control Output 8 for other purposes.)

Sensors

Configure Sensors

1. Double-click a **Sensor Name**, and then type an appropriate name for your alarm sensor.
2. Double-click **Type**, and then select the contact type for this alarm, Normally Open (**NO**), or Normally Closed (**NC**).
3. Double-click **Relay**, and type the time, in seconds, you want to elapse between the detection of the sensor and when the alarm is activated.
4. Click **Apply** to save your settings.

Activate PTZ Preset

Use this function to activate a PTZ camera to move to a preset position when a sensor event is detected.

1. Click **Sensor / Preset**.
2. Select the camera **Channel** you want to configure.

Note The camera channel must be a PTZ camera.

3. Select the appropriate **Sensor**.
4. Select the appropriate **Preset** position for the camera to move to when the selected Sensor is activated.

Note The preset positions must be configured on your camera. Refer to the camera manual for instructions.

5. Click **Set**.
6. Select a different **Sensor** and **Preset** combination, and then click **Set**.
7. Repeat for all of your desired sensors.
8. To delete a Sensor-Preset combination, select the combination in the list, and then click **Delete**.
9. Click **OK**.
10. Click **Apply** to save your settings.

Hybrid Sensor Setup

This interface is used to link Hard Contact Sensor Inputs from supported Network Devices to the recorder software.

Network Device Sensor Setup

* Network Device List (Select a device.)

Address (Port)	Model (Type)	Sensor count	Relay count

* Sensor / Relay list

Sensor count	DVR Sensor No	Relay	DVR Relay No

Apply Close

1. Click **Setup**.
2. Click **Alarms/Sensor**, and then click the **Sensors** tab.
3. In the Hybrid Sensor Setup area, click **Setup**.
4. Select a camera from the **Network Device List**.
5. Double-click **DVR Relay No**, and then select a relay to assign to this camera.
6. Click **Apply**.
7. Click **Apply** again to save your settings.

Relays

1. Click **Setup**.
2. Click **Alarms/Sensor**, and then click the **Relays** tab.
3. Double-click **Relay Name** for each relay to assign a name.
4. Click **Apply** to save your settings.

RECORDING SCHEDULE

The Recording Schedule window allows you to create different recording schedules based on the day, time, and type of recording desired. This window contains the System Restart options. To access the Recording Schedule window, click **Setup** in the Live screen, and then click **Recording Schedule**.

Schedule Number – You can create up to 32 separate schedules. Schedules can overlap while still operating independently, creating a very detailed recording schedule.

Special Day Recording Schedule – Customize a schedule for a specific day, such as a holiday or weekend.

Alarm Options – Specify alarm events that will trigger remote alarm monitor software.

Power Off Options – Use this function to specify time frames for turning off and restarting your recorder automatically.

Note Schedules are prioritized in descending numerical order. If there is an overlap, the schedule with the higher priority will override the other schedule. (**Example:** If there is an overlap in Schedules 1 and 2, Schedule 1 will take priority.)

Default Schedules

These are pre-set schedules. Click **Default Schedule 1** or **Default Schedule 2** to choose either of the following settings. When you have decided, click Apply to save your settings.

Note Default Schedules are not configured for use with sensors or alarms.

Default Schedule 1

- 8 am to 5 pm, Monday through Friday – All cameras set to continuous recording
- 5 pm to 8 am, Monday through Friday – All cameras set to motion recording
- 24 hours, Saturday and Sunday – All cameras set to motion recording

Default Schedule 2

- All cameras set to motion recording 7 days a week, 24 hours per day.
- Camera 1 is associated with sensor input 1
- Camera 2 is associated with sensor input 2
- Camera 3 associated with sensor input 3

Day of the Week

Day of Week

☐ SUN ☐ MON ☒ TUE ☐ WED ☐ THU ☐ FRI ☐ SAT

Single Selection Mode

Click **Single Selection Mode** or **Multi Selection Mode** to switch between modes of scheduling by day of the week.

Single Selection Mode – Set your schedule one day at a time by selecting the appropriate day.

Multi Selection Mode – Set your schedule for multiple days at once by selecting all the days you want to configure.

Creating a Recording Schedule (Example)

The following instructions will help you create a simple schedule for cameras 1 through 4. This is designed as a tool to help you understand how to create a schedule. When you understand the process of creating a schedule, you will want to create one to suit your specific needs.

This example schedule will be as follows:

- MON-FRI (9AM-5:59PM) all 4 cameras will record using MOTION recording.
- MON-FRI (6PM-8:59AM) all 4 cameras will record using CONTINUOUS recording.
- SAT-SUN (12AM-11:59PM) all 4 cameras will record using MOTION recording.

Setting Daytime Motion Detection (Example)

1. In the **Schedule Number** list, select **Sch01**.
2. Click **Single Selection Mode** to change to **Multi Selection Mode**.
3. Select **Mon, Tue, Wed, Thu, and Fri**.
4. On the **Sch01** row, click and drag your mouse to select the hours **9 – 7**, and then click **Set**.
5. Click **1** in the **Camera** section repeatedly, until a green **M** (motion) appears.
6. Repeat for **2 – 4** in the Camera section.
7. Click **Apply** to save.

Recording Schedule

Pre-Defined Schedules

All set to Motion All set to Continuous Default Schedule 1 Default Schedule 2

Day of Week

☐ SUN ☐ MON ☒ TUE ☒ WED ☒ THU ☒ FRI ☐ SAT

Multi Selection Mode

	ALL	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Sch 01																									
Sch 02																									
Sch 03																									
Sch 04																									
Sch 05																									
Sch 06																									
Sch 07																									
Sch 08																									
Sch 09																									

Highlight a time period and press the Set or Clear button

Set Clear

Schedule Number: Sch 01

Delete Delete All

Select All:

Camera

☒ All Motion

☒ All Continuous

☒ All Sensor

☐ Not Selected

Sensor

Relay

Alarm Options

☐ Sensor Event

☐ Motion Event

☐ Map Alarm

☐ Emergency Alarm

Transmission Duration

1 Sec

IP Use Emergency IP

IP 1 ☐ 0.0.0.0

IP 2 ☐ 0.0.0.0

IP 3 ☐ 0.0.0.0

Setting Nighttime Continuous Recording

1. In the **Schedule Number** list, select **Sch02**.
2. On the **Sch02** row, click and drag your mouse to select the hours **0 – 8**, and then click **Set**.
3. Click **1** in the **Camera** section repeatedly, until a red **C** (continuous) appears.
4. Repeat for **2 – 4** in the **Camera** section.
5. Click **Apply** to save.

Recording Schedule

Pre-Defined Schedules

Day of Week
☐ SUN ☒ MON ☒ TUE ☒ WED ☒ THU ☒ FRI ☐ SAT

	ALL	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Sch 01																									
Sch 02																									
Sch 03																									
Sch 04																									
Sch 05																									
Sch 06																									
Sch 07																									
Sch 08																									
Sch 09																									

Highlight a time period and press the Set or Clear button

Schedule Number :

Select All:

	Camera				Sensor				Relay			
<input checked="" type="checkbox"/> All Motion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> All Continuous	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> All Sensor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Not Selected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Power Off Options

Special day recording schedule
 7/ 8/2013

Alarm Options
☐ Sensor Event
☐ Motion Event
☐ Map Alarm
☐ Emergency Alarm

Transmission Duration
 Sec

IP	Use	Emergency IP
IP 1	<input type="checkbox"/>	0.0.0.0
IP 2	<input type="checkbox"/>	0.0.0.0
IP 3	<input type="checkbox"/>	0.0.0.0

Setting Weekend Motion Recording

1. In the **Schedule Number** list, select **Sch03**.
2. Clear **Mon-Fri**, and then select **Sun** and **Sat**.
3. On the **Sch03** row, click and drag your mouse to select the entire row, and then click **Set**.
4. Click **1** in the **Camera** section repeatedly, until a green **M** (motion) appears.
5. Repeat for **2 – 4** in the **Camera** section.
6. Click **Apply** to save.

Recording Schedule

Pre-Defined Schedules

Day of Week
☒ SUN ☐ MON ☐ TUE ☐ WED ☐ THU ☐ FRI ☒ SAT

	ALL	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Sch 01																									
Sch 02																									
Sch 03																									
Sch 04																									
Sch 05																									
Sch 06																									
Sch 07																									
Sch 08																									
Sch 09																									

Highlight a time period and press the Set or Clear button

Schedule Number :

Select All:

	Camera				Sensor				Relay			
<input checked="" type="checkbox"/> All Motion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> All Continuous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> All Sensor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Not Selected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Power Off Options

Special day recording schedule
 7/ 8/2013

Alarm Options
☐ Sensor Event
☐ Motion Event
☐ Map Alarm
☐ Emergency Alarm

Transmission Duration
 Sec

IP	Use	Emergency IP
IP 1	<input type="checkbox"/>	0.0.0.0
IP 2	<input type="checkbox"/>	0.0.0.0
IP 3	<input type="checkbox"/>	0.0.0.0

Creating a Sensor Schedule (Example)

Sensor inputs can be programmed to instantly trigger recording on one or more camera channels when an alarm event occurs.

Note You must first associate the software sensors with the sensors. See the Hybrid Sensor Setup section of this manual for more detail.

This schedule example will be as follows:

- SUN-SAT (12AM – 11:59 PM) cameras 1 and 2 will be activated by Sensor 3 and Sensor 4.
1. Select **Sch01** in the **Schedule Number** list.
 2. Click the **Single Selection Mode** button to enable **Multi Selection Mode**.
 3. Select **Sun, Mon, Tue, Wed, Thu, Fri, and Sat**.
 4. In the **Sch01** row, click and drag your mouse to select the entire row.
 5. Click **1** and **2** in the **Camera** section repeatedly until a red **S** (sensor) appears.
 6. Click **3** and **4** in the **Sensor** section.
 7. Click **Apply** to save.

Recording Schedule

Pre-Defined Schedules

All set to Motion All set to Continuous Default Schedule 1 Default Schedule 2

Day of Week

☒ SUN ☒ MON ☒ TUE ☒ WED ☒ THU ☒ FRI ☒ SAT Multi Selection Mode

	ALL	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Sch 01																									
Sch 02																									
Sch 03																									
Sch 04																									
Sch 05																									
Sch 06																									
Sch 07																									
Sch 08																									
Sch 09																									

Highlight a time period and press the Set or Clear button

Set Clear

Schedule Number: Sch 01 Delete Delete All

Select All:

Camera

☒ All Motion ☒ All Continuous ☒ All Sensor ☐ Not Selected

Sensor

☒ 1 ☒ 2 ☒ 3 ☒ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16

Relay

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐ 13 ☐ 14 ☐ 15 ☐ 16

Power Off Options

Power Off Options

Special day recording schedule

7/ 8/2013

Normal Day Mode

Delete special day

Save special day

Alarm Options

☐ Sensor Event ☐ Motion Event ☐ Map Alarm ☐ Emergency Alarm

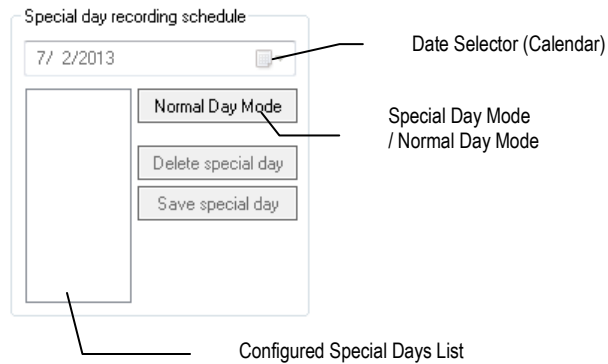
Transmission Duration

1 Sec

IP	Use	Emergency IP
IP 1	<input type="checkbox"/>	0.0.0.0
IP 2	<input type="checkbox"/>	0.0.0.0
IP 3	<input type="checkbox"/>	0.0.0.0

Special Day Schedule

You can create unique recording schedules for specific days such as holidays or special events.



Creating/Editing a 'Special Day' Schedule

1. Click **Normal Day Mode** to enable the **Special Day Mode**.
2. Set a recording schedule as desired. For instructions, see the **Creating a Recording Schedule (Example)** and **Creating a Sensor Schedule (Example)** sections in this chapter.
3. Select a day by typing the date or clicking the down arrow to select the date from a calendar.
4. Click **Save Special Day**.
5. The special day will appear as a date in the Special Day Schedule. To edit this schedule, select it, and then repeat steps 1 and 2.
6. Click save **Special Day**. When a confirmation message appears, click **OK**.
7. To continue setting normal schedules, click Special Day Mode to enable Normal Day Mode.

Note When you are making changes in Normal Day Mode, the dates in the Special Day list will appear dimmed. They are still saved, but you cannot access them or make changes unless you are operating in Special Day Mode.

8. Click **Apply** to save your settings.

Deleting a 'Special Day' Schedule

1. Click **Normal Day Mode** to enable the **Special Day Mode**.
2. Select a date from the Special Days list.
3. Click **Delete Special Day**.

Alarm Options

Use the Alarm Options section to configure the alarm output for specific events.

There are two Alarm Options:

- Sensor Event – Trigger an alarm output based on a sensor
- Motion Event – Trigger an alarm output based on motion detection

Motion can be designated as an alarm event. Often motion does not need to be treated as an Alarm event. For example: During work hours, motion that occurs is expected and should not be treated as an alarm. However, after business hours, any motion that occurs could be treated as an alarm.

1. In the Display screen, click **Setup**.
2. Click **Recording Schedule**.
3. In the Alarm Options section, select **Sensor Event**, **Motion Event**, or both.
4. Once you have selected an Event option, you can select alarm options.
 - **Map Alarm** – Enable this camera to work the the Map Alarm function of SCS remote monitoring software.
 - **Emergency Alarm** – Send video to a PC running Emergency Agent software.
5. Set the **Transmission Duration** (in seconds) for this alarm.
6. Enter up to five **Emergency IP** of PCs running Emergency Agent software.

Note If you type a URL rather than an IP address in this field, all of the text may not be visible once it is entered. To view the entire URL, hover your mouse pointer over your desired URL.

7. Select the appropriate Emergency IP addresses. You can only use one IP address at a time.
8. Click **Apply** to save your settings.

Tip See the Emergency Agent chapter for detailed information on setting up the Emergency Agent software.

Setting a Restart Schedule

The Power Off Options section allows you to define a schedule wherein the recorder automatically restarts according to specified parameters.

The dialog box is titled "Setting a Restart Schedule". It contains seven sections, one for each day of the week:

- Sunday**: ☐ Enable, Time: 00:00, ☒ Restart, ☐ Off
- Monday**: ☐ Enable, Time: 00:00, ☒ Restart, ☐ Off
- Tuesday**: ☐ Enable, Time: 00:00, ☒ Restart, ☐ Off
- Wednesday**: ☐ Enable, Time: 00:00, ☒ Restart, ☐ Off
- Thursday**: ☐ Enable, Time: 00:00, ☒ Restart, ☐ Off
- Friday**: ☐ Enable, Time: 00:00, ☒ Restart, ☐ Off
- Saturday**: ☐ Enable, Time: 00:00, ☒ Restart, ☐ Off

At the bottom right are two buttons: **OK** and **Cancel**.

Create System Restart Schedule

1. In the Display screen, click **Setup**.
2. Click **Recording Schedule**.
3. Click **Power Off Options**.
4. Select **Enable** for each day of the week that a restart is desired.
5. Specify the time of day to schedule the system restart.
6. Select either **Restart** or **Off**.

Note If **Off** is selected, the recorder will shut down at the specified time but not restart.

7. Click **OK**.
8. Click **Apply** to save your settings.

NETWORK SETUP

Network Setup allows you to adjust network settings such as Ports, and enable Remote Access.

The screenshot shows the 'Network Setup' web interface. It is divided into several sections: 'Network Setup', 'Transport Setup', 'Keyboard Control', 'Clip Backup', 'Web Function', 'Health Check', and 'Audio Communication'. Annotations with lines pointing to specific fields include:

- A bracket on the left side of the 'Network Setup' section, labeled 'Remote Client Ports', encompassing the 'TimeOut Value', 'Emergency Port', 'Center Port', and 'Search Port' fields.
- A line pointing to the 'Live Port' field, labeled 'View live video via Internet Explorer'.
- A line pointing to the 'Enable Audio Communication' checkbox, labeled 'Enable two-way audio between recorder and Remote Client'.

The 'Network Setup' section contains the following fields and values:

- TimeOut Value: 60
- Emergency Port (1024 - 5000): 2001
- Center Port (1024 - 5000): 2000
- Setup Port (1034 - 5010): 2010
- Live Port (1024 - 5000): 2002
- Search Port (1024 - 5000): 2003

The 'Transport Setup' section contains the following fields and values:

- Quality: Normal
- Resolution: 640x480
- Transport Rate: 100

The 'Web Function' section contains the following fields and values:

- Enable Web Viewer: ☒
- HTTP Port: 80
- Internet Port: 4006
- Live Port: 4007

The 'Health Check' section contains the following fields and values:

- Enable Health Check: ☒
- Health Check Port: 2005

The 'Audio Communication' section contains the following fields and values:

- Enable Audio Communication: ☒
- Audio Port: 3002

Time Out Value – When attempting to connect to the recorder, if the connection does not succeed during the timeout period (seconds), the connection will be terminated (**default: 60**).

Emergency Port – Connect with the Alarm Monitor software (**default port: 2001**).

Center Port – Connect with the Surveillix remote software (Remote, SCS, the Surveillix App). This port must be specified in the remote software to connect to the recorder (**default port: 2000**).

Setup Port – Enable access to recorder setup when using SCS. This port is locked to the center port, plus 10. (**default port: 2010**).

Note Center Port 1025 is not available.

Image Port – Transfers the video to the Surveillix remote software (**default port: 2002**).

Search Port – Transfers search information to the Surveillix remote software (**default port: 2003**).

Note If connecting to the recorder through a firewall, the above ports must be open to incoming and outgoing traffic.

Health Check Port – Enable SCS to receive information regarding the health of the recorder (**default port: 2005**).

Audio Port – Enable two-way audio (**default port: 3002**).

Transport Setup – Use this section to configure the quality and speed of the video sent to remote clients.

Keyboard Control – Enable the recorder to work with a Keyboard Joystick Controller.

Clip Backup – Set the server port for clip backup (**default port: 9876**).

View IP Address – View the IP address of your recorder for use in remote access applications.

USER MANAGEMENT

The User Management screen allows the administrator to create, edit, and delete user accounts. Each user account can be assigned different privileges to limit the usage of the recorder system. Users can be given administrator privileges by enabling all rights, however only the true administrator account can access the User Management screen.

Note The **Delete User** button immediately deletes the user – use cautiously.

User Management

Select User

Administrator Default

User Information

User Name :
Password :
Confirm Password :

Permission

Search
Setup
Pan/Tilt Advance
Instant Recording
Relay Out
TV Out
Shut Down
Backup
Pan/Tilt

Hidden

Camera	Audio
<input type="checkbox"/> Camera 1	<input type="checkbox"/> Audio 1
<input type="checkbox"/> Camera 2	<input type="checkbox"/> Audio 2
<input type="checkbox"/> Camera 3	<input type="checkbox"/> Audio 3
<input type="checkbox"/> Camera 4	<input type="checkbox"/> Audio 4
<input type="checkbox"/> Camera 5	<input type="checkbox"/> Audio 5
<input type="checkbox"/> Camera 6	<input type="checkbox"/> Audio 6
<input type="checkbox"/> Camera 7	<input type="checkbox"/> Audio 7
<input type="checkbox"/> Camera 8	<input type="checkbox"/> Audio 8
<input type="checkbox"/> Camera 9	<input type="checkbox"/> Audio 9
<input type="checkbox"/> Camera 10	<input type="checkbox"/> Audio 10
<input type="checkbox"/> Camera 11	<input type="checkbox"/> Audio 11
<input type="checkbox"/> Camera 12	<input type="checkbox"/> Audio 12
<input type="checkbox"/> Camera 13	<input type="checkbox"/> Audio 13
<input type="checkbox"/> Camera 14	<input type="checkbox"/> Audio 14
<input type="checkbox"/> Camera 15	<input type="checkbox"/> Audio 15
<input type="checkbox"/> Camera 16	<input type="checkbox"/> Audio 16

User Rank: 10

User Auto log off

☐ Auto log off 5 Minute(s)

Reset Update User Delete User

Log Off Users who are inactive for the designated time (this settings affects all users).

Enable Auto Log Off

Add a New User

1. In the Display screen, click **Setup**.
2. Click **User Management**.
3. Click **Add User**.
4. Type a **User Name** and **Password**.
5. Type the password again in the **Confirm Password** field.
6. Enable the appropriate **Permissions**.
7. Select **Camera** or **Audio** channels to hide those channels from the user.
8. Assign a **User Rank**.

Note See the User Rank section of this manual for more information.

9. Click **Save**.
10. Click **Apply** to save your settings.

User Rank

The User Ranking structure allows the option to assign a privilege level to users who access the recorder remotely 1-10. (1 is the highest privilege level). For example: Since only one user is allowed to use the PTZ controls at any one time, a user with a rank of 1 will take precedence over a user with a rank of 2 if both are attempting to use PTZ controls.

The User Rank option affects:

Setup Access - The recorder software can only have one user accessing Setup at any given time. A user with a higher rank will kick another user out of the Setup menu.

Note Changes made by a lower ranked user may NOT save when a higher ranked user kicks the lower ranked user out of the Setup menu.

PTZ Control - The recorder software can only have one user using the PTZ controls at any given time. A user with a higher rank will kick another user out of the PTZ controls.

1. Log into your recorder as an Administrator.
2. In the Display screen, click **Setup**.
3. Click **User Management**.
4. Select a user from the **Select User** box,
5. Set the user's rank using the **User Rank** list.
6. Click **Save**.
7. Click **Apply** to save your settings.

Changing the Administrator Password

1. Select **Administrator** in the Select User section.
2. Type a new **Password**.
3. Type the same password in the **Confirm Password** field.
4. Click **Save**.
5. Click **Apply** to save your settings.

Default Administrator Password

The default administrator login is:

User: Administrator

Password: <none>

STORAGE MANAGEMENT

Status Check / Email

Use the Status Check/Email tab in Storage Management to configure settings for status checks and email recipients when status checks require attention. This function can keep you apprised of events detected by your system without requiring you to check the recorder each day.

General

1. On the Display screen, click **Setup**.
2. Click **Storage Management**.
3. Click the **Status Check/Email** tab.
4. Click the **General** tab.
5. Select **Enable Email Alarm**.
6. Enter a **From Name** and email **Address**.

Note This name and address will appear in the **From** line of email alert messages.

7. Enter the SMTP information for the email account that will be used to send emails from the recorder. Contact your administrator for this information if necessary.
8. If using a secondary email account select **Use Secondary SMTP** and complete the SMTP information.
9. Click **Test** to send a test message to either address.
10. Click **Apply** to save your settings.

The screenshot shows the 'General' tab of the 'Status Check/Email' configuration window. It features a 'Send User' section with 'From Name' and 'From Address' input fields. Below this is the 'Primary SMTP Setting' section, which includes 'Host Address', 'User Name', 'Password', and 'Port' (set to 25) input fields, a 'Use Login' checkbox, and a 'Test' button. A 'Use Secondary SMTP' section is also present, with similar input fields and a 'Test' button.

Users

1. On the Display screen, click **Setup**.
2. Click **Storage Management**.
3. Click the **Status Check/Email** tab.
4. Click the **Users** tab.
5. Select the type of **Event** to send email on.
6. Enter the **User** and **E-mail Address** of a desired recipient.
7. Click **Add**.
8. Repeat for additional recipients and types of events.

Note A separate email notification for each type of event must be set up for a single recipient to receive notifications for each type of event.

9. Click **Apply** to save your settings.

The screenshot shows the 'Users' tab of the 'Status Check/Email' configuration window. It features a table with columns 'User', 'E-Mail Address', and 'Event'. Below the table is an 'Event' section with four checkboxes: '1. HDD Check Alarm Event', '2. Recording Data Check', '3. Event Alarm', and '4. SMART Alarm'. To the right of the event section is a 'User/E-Mail' section with 'User' and 'E-Mail Address' input fields. At the bottom are 'Add', 'Update', and 'Delete' buttons.

Storage Check

1. Set up the **General** and **Users** tabs first.
2. Click the **Storage Check** tab.
3. Select **Enable**.
4. Define the frequency of storage checks (in minutes).
5. Select an additional Alert Option if desired: **Beep** or **Popup Message**.
6. Add a **Comment** that will be seen in the email message if desired.
7. Click **Apply** to save your settings.

The screenshot shows the 'Storage Check' configuration window. At the top, there are three tabs: 'SMART Alert', 'Alarm Event', and 'MySurveillix'. Below these, there are two sub-tabs: 'Storage Check' (which is active) and 'Recording Data Check'. The 'Storage Check' sub-tab contains the following settings:

- ☒ **Enable**
- Frequency: Every Minute(s)
- Check Alert Option**:
 - ☐ Beep
 - ☐ Popup message
- Comment**: A large text area for entering a comment.

Recording Data Check

1. Set up the **General** and **Users** tabs first.
2. Click the **Recording Data Check** tab.
3. Select **Enable**.
4. Define the frequency of data checks (in hours).
5. Select the **Action Method**: **Popup Message Alert**, **Beep Alert**, or **Email Alert**.
6. Add a **Comment** that will be seen in the email message if desired.
7. Click **Apply** to save your settings.

The screenshot shows the 'Recording Data Check' configuration window. At the top, there are three tabs: 'SMART Alert', 'Alarm Event', and 'MySurveillix'. Below these, there are two sub-tabs: 'Storage Check' and 'Recording Data Check' (which is active). The 'Recording Data Check' sub-tab contains the following settings:

- ☒ **Enable**
- Frequency: Every Hour(s)
- Action Method**:
 - ☐ Popup Message Alert
 - ☐ Beep Alert
 - ☐ E-Mail Alert
- Comment**: A large text area for entering a comment.

SMART Alert

1. Set up the **General** and **Users** tabs first.
2. Click the **SMART Alert** tab.
3. Select **Enable**.
4. Define the frequency of SMART status checks (in hours).
5. Select the type of SMART event to trigger an action.
6. If selecting for temperature checks, define the maximum HDD temperature.

Note Surveillix recommends a temperature threshold of 150° F (65° C) if you choose to use this function.

7. Select an **Action Method**: **Beep Alert**, **Popup Message Alert**, or **Email Alert**.
8. Add a **Comment** that will be seen in the email message if desired.
9. Click **Apply** to save your settings.

The screenshot shows the 'Storage Check' tab with the 'SMART Alert' sub-tab selected. The 'Enable' checkbox is checked. The frequency is set to 'Every 1 Hour(s)'. There are two options for triggering an action: 'If SMART alarm occurs, take action.' (unchecked) and 'If HDD temperature exceeds threshold temperature, take action' (unchecked). The 'Threshold Temperature' is set to 0 with a unit dropdown set to 'F'. Under 'Action Method', 'Beep Alert' is selected. A 'Comment' text area is at the bottom.

Alarm Event

1. Set up the **General** and **Users** tabs first.
2. Click the **Alarm Event** tab.
3. Select **Enable**.
4. Define the frequency to send email alerts (in minutes).
5. Select the **Event Type**: **Motion**, **Sensor**, **No Signal** (video loss).
6. Select **With Detail Info** to receive a still image attachment of the associated camera in the email message.
7. **Max Count** defines the number of message that will contain detailed data within the frequency time frame.
8. Add a **Comment** that will be seen in the email message if desired.
9. Click **Apply** to save your settings.

The screenshot shows the 'Storage Check' tab with the 'Alarm Event' sub-tab selected. The 'Enable' checkbox is checked. The frequency is set to 'Every 10 Minute(s)'. Under 'Event Type', 'Motion' is selected. In the 'Setting Event E-Mail' section, 'With Detail Info' is checked, and 'Max Count(Detail Data)' is set to 20. A 'Comment' text area is at the bottom.

MySurveillix

1. Set up the **General** and **Users** tabs first.
2. Click the **MySurveillix** tab.
3. Select **Use MySurveillix**.
4. Enter a numeric **Security Code** if desired (this is an additional security measure to prevent unauthorized users from adding the recorder to their MySurveillix account).
5. Define the **Send Time** to designate the time the recorder will send updates to MySurveillix.
6. Select **Send notification to MySurveillix on alarm events** if you want the recorder to report alarm events to MySurveillix.
7. Type a new **MAC Address** if necessary.
8. To set a custom time to send updates to MySurveillix, select **Custom Day/Night**, and then select your desired **Day** and **Night** times.
9. To send updates to a custom URL, select **Send to Custom URL**, and then type in the URL.
10. Click **Apply** to save your settings.

The screenshot shows the 'MySurveillix' configuration window. It has two tabs: 'Storage Check' and 'Recording Data Check'. Under 'Storage Check', there are sub-tabs for 'SMART Alert', 'Alarm Event', and 'MySurveillix'. The 'MySurveillix' sub-tab is active.

Default Setup

- ☐ Use MySurveillix
- Send Update to MySurveillix*
- * This button sends a complete daily update to MySurveillix. Use this when configuring MySurveillix for the first time.

Advanced Setup

- Security Code:
- Send Time:
- ☐ Send notification to MySurveillix On alarm events instantly
- MAC Address:
- ☒ Custom Day/Night
 - Night:
 - Day:
- ☐ Send to Custom URL

SMART Information

The SMART Information tab displays Hard Drive information.

The screenshot shows the 'Storage Management' window with the 'Smart Information' tab selected. It displays two tables: 'HDD Information' and 'SMART Information'.

HDD Information

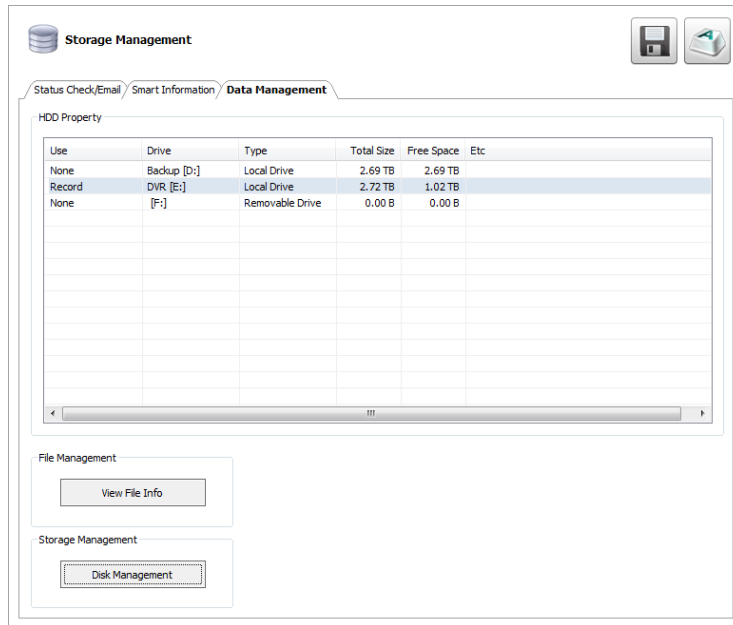
No	Drive ID	Model	Capacity	Bad Sector	Temperature	S.M.A.T
1	0	WDC WD30EURS-63SPKY0	2794 GB	0	31 C	Good
2	1	WDC WD30EURS-63SPKY0	2794 GB	0	29 C	Good

SMART Information

Attribute Name	Value	Worst	Thresh	Raw Value	When failed
Read Error Rate	200	200	51	0	-
Spin Up Time	178	177	21	6091	-
Start/Stop Count	100	100	0	21	-
Reallocated Sectors Count	200	200	140	0	-
Seek Error Rate	200	200	0	0	-
Power On Hours(POH)	100	100	0	124	-
Spin Retry Count	100	253	0	0	-
Recalibration Retries	100	253	0	0	-
Device Power Cycle Count	100	100	0	20	-
Load/Unload Cycle	200	200	0	12	-
Temperature	119	115	0	31	-
Reallocation Event Count	200	200	0	0	-
Current Pending Sector Count	200	200	0	0	-
Uncorrectable Sector Count	100	253	0	0	-
UltraDMA CRC Error Count	200	200	0	0	-
Write Error Rate	100	253	0	0	-

Data Management

The Data Management tab displays the partition scheme and health status of the Hard Disk Drives in the recorder. Use this tab to troubleshoot a recorder, or verify the amount of Hard Drive storage installed. This function is native to the Windows operating system. For more information about Disk Management, consult a Windows 7 manual.



Note Double-click a drive in the **Use** column to assign the drive a specific function (**Record**, **Backup**, or **None**). This function is for use in software-only applications, and is not needed when using this software with a recorder.

File Management

1. Click **View File Info** to view all file information.
2. To export file info, click **Export**, and then browse to your desired location.
3. Click **Save**.
4. Click **Close**.

Storage Management

1. Click **Disk Management** to access the Disk Management function of the Windows operating system.
2. To view this window, close the **Setup** window, and then click **Exit**.
3. Select **Restart in Windows** mode, and then click **OK**.
4. For instructions regarding Windows Disk Management, please refer to a Windows 7 manual.

System Information

The **Log Management** window provides you the options to overwrite log files or schedule log deletion.

Basic Information

The Information display allows users to define the site code necessary for connecting to remote software, save comments relative to the recorder, store tech support and contact number information, and see the currently running server software version.

The screenshot shows the 'System Information' window with two tabs: 'Basic Information' and 'Log Files'. The 'Basic Information' tab is active and contains three main sections: 'Digital Recorder Information', 'Hard Drive Information', and 'Contact Information'. The 'Digital Recorder Information' section includes fields for Site Code (100-000), Serial Number, Decoder (N/A), Video Format (NTSC), Software Version (5.0.0), and a General Notes text area. The 'Hard Drive Information' section lists details for C, D, E, and Y drives, including total and free space. The 'Contact Information' section includes fields for General Contact, Contact Number, Support Contact, and another Contact Number. A 'Program Management(ETC)' button is located at the bottom right. Annotations with leader lines point to specific elements: 'Total HDD /Available HDD Space' points to the drive list; 'Currently running software version' points to the Software Version field; 'User Entered Comments' points to the General Notes text area; and 'User-Defined Contact Numbers' points to the Contact Number fields.

Section	Field	Value
Digital Recorder Information	Site Code	100-000
	Serial Number	
	Decoder	N/A
	Video Format	NTSC
	Software Version	5.0.0
	General Notes	
Hard Drive Information	C: Drive	Total Space : 40959 MB, Free Space : 27588 MB
	D: Drive	Total Space : 2820398 MB, Free Space : 2820303 MB
	E: Drive	Total Space : 2861458 MB, Free Space : 2639703 MB
	Y: Drive	CD Drive
	Other Management	Program Management(ETC)
Contact Information	General Contact	
	Contact Number	
	Support Contact	
	Contact Number	

Site Code – A user-specified unique identification name used by other recorder software to identify the recorder. (Remote, Emergency Agent, SCS, Digital Signature Verifier)

Contact Information – Attach contact information as a digital signature to exported video.

Other Management – Click Program Management to access **External Program Management**.

Program Management

Setting up DDNS

Dynamic Domain Name System (DDNS) is a service that provides a static address to simplify remote connection to the recorder. This service is most useful for installations where the WAN (public) IP address is dynamic (changes from time to time). Most public IP addresses are dynamic unless a static address has been specifically ordered from the internet service provider.

Enable DDNS

To enable this functionality of the recorder, follow the steps below:

1. Click **Setup** on the Display screen and log in as Administrator if prompted.
2. Click **Administrative**.
3. Click **Program Management (ETC)** and enter the Administrator password when prompted.
4. Click **Show** (to the right of **Dynamic DNS Configuration**).

5.

Index	File name	Desc	Status	Start	Stop	Show	Hide
1	DDNS User Infor...	Dynamic DNS Configuration	NOT RUN			Show	
2	Information Col...	Collects DVR Information and se...	NOT RUN			Show	
3	Perfmon.exe	Opens Performance monitor.	NOT RUN			Show	

5. Select **Enable DDNS**.
6. Enter the **User Name**, **Password**, and **Hostname** specified on the DDNS document shipped with your recorder.
7. Click **OK**, and then close the **Program Manager** window.

Note Ensure the recorder has an IP address by setting it statically. The Network settings may need to be changed. If you are not sure of the correct values, contact the individual or department responsible for network administration at the site.

Enable DDNS: ☐

User Name:

Password:

Host Name:

Set the IP Address

The IP address of the recorder is set in Windows; to set the IP address follow the steps below:

1. On the Display screen, click **Exit** and choose **Restart in Windows Mode**.
2. Right-click **My Network Places** and click **Properties**.
3. On the **General** tab, click **Internet Protocol (TCP/IP)** and then click **Properties**.
4. Select **Use the following IP address**.
5. Enter values for the IP Address, Subnet Mask, and Default Gateway (these may be specified by the department responsible for network administration).
 - a) **IP Address**: The first three sets of numbers should match the router's local IP address and the last set should be a unique number between 1-254.
 - b) **Subnet Mask**: This should match the router's setting (commonly 255.255.255.0 for 192.X addresses and 255.0.0.0 for 10.X addresses).
 - c) **Default Gateway**: This is the router's internal IP address. Once DDNS is configured, the router the recorder connects to will need to have port forwarding configured.

For further instruction on this process, visit http://www.portforward.com/english/routers/port_forwarding/outerindex.htm

Once DDNS and port forwarding have been configured, the recorder will be accessible from any remote site by entering the HOSTNAME into the address bar of Internet Explorer or the IP Address field in remote software.

Information Collection

The **Information Collector** is a log-collecting utility gathers all system logs and prompts to be exported. This troubleshooting tool is to be used when working with technical support to diagnose a problem with your recorder.

Performance Monitor

The **Performance Monitor** (perfmon.exe) brings the Windows Utility Performance Monitor to the foreground. This troubleshooting tool is to be used when working with technical support to diagnose a problem with your recorder.

Log Files

Use the Log File tab to view logs for system, event, alarm, and drive check statuses by date. You can also export logs, and manage how the log files are stored.

The screenshot shows the 'Log Files' tab in the Performance Monitor. It includes a 'Select Log Type' dropdown menu, a 'Select Date' calendar, a 'System Log Files' list, and 'Log Management' and 'Export Logs' sections. Annotations point to various features:

- Select log type**: Points to the 'Select Log Type' dropdown menu.
- System, Event, Alarm, Drive Check**: Points to the list of log types.
- Enter log management**: Points to the 'Log Management' button.
- Export log files by date**: Points to the 'Export Logs' section.
- Select date**: Points to the 'Select Date' calendar.
- User-Defined Contact Numbers**: Points to the 'System Log Files' list.

No	Date/Time	Log Contents	Log Value
1	7/3/2013 8:15:22 AM	Start Site	Ver(5.0.0 [Build : 4]) - Lib(2
2	7/3/2013 8:15:22 AM	Start Site Alter Normal terminate	
3	7/3/2013 8:15:22 AM	Timezone information	Pacific Standard Time
4	7/3/2013 8:15:22 AM	IMAPI Initialize	2.0.0.0
5	7/3/2013 8:15:24 AM	Create data directory	[E] Date:20130703, Time:

Viewing Log Files

1. Click **Select Log Type**, and then select the type of log you want to see (**System**, **Event**, **Alarm**, or **Drive Check**).
2. Use the **Calendar** to select the date you want to review.
3. Scroll through the **System Log Files** list to view your files.

Exporting Log Files

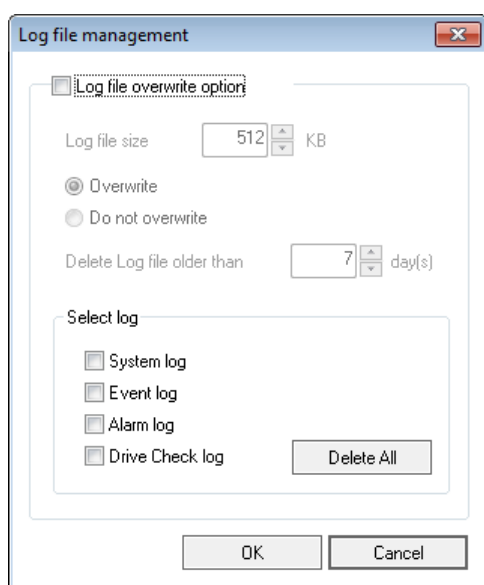
1. Select a **Start Date** and an **End Date**.
2. Click **Export Log Data (Text)**, or **Export Log Data (Raw)**, depending on your needs.
3. Browse to the location you want to save your files, and then click **OK**.

Set Up Log Management Options

1. In the Display screen, click **Setup**.
2. Click **System Information**, and then click the **Log Files** tab.
3. Click **Log Management**.
4. Select **Log File Overwrite Option** to enable.
5. Select **Overwrite** or **Do Not Overwrite**.
6. If Overwrite is selected:
 - a) Enter a maximum **Log File Size**.
 - b) Choose a number of days to keep logs (**Delete Log File Older Than**).

Note Log files can also be manually deleted. Simply select the log you want to delete on the bottom portion of the window, then click **Delete All**.

7. Click **OK** to save the settings and close the window.



INSTANT RECORDING

The Instant Recording feature allows users to manually initiate recording on a specific camera, overriding the current schedule. When Instant Recording is activated the recorder flags the clip as an event so Instant Recording instances can be found using the Index Search. Instant Recording can be used, for example, when a suspicious object or person is detected and you want to flag that section of video for easy retrieval at a later date.

Activate Instant Recording

1. On the Display screen, right-click the camera on which to enable instant recording and choose **Instant Recording** (or double right-click). An INSTANT label will be placed on the upper right corner of the video.
2. To turn the Instant Recording option off, right-click the camera and choose **Instant Recording** (or double right-click).

Searching 'Instant Recorded' Video

1. On the Display screen, click **Search**.
2. Click **Index**.
3. Select the **Instant Recording** option, and then click OK. See the Search chapter for more information.

SEARCH

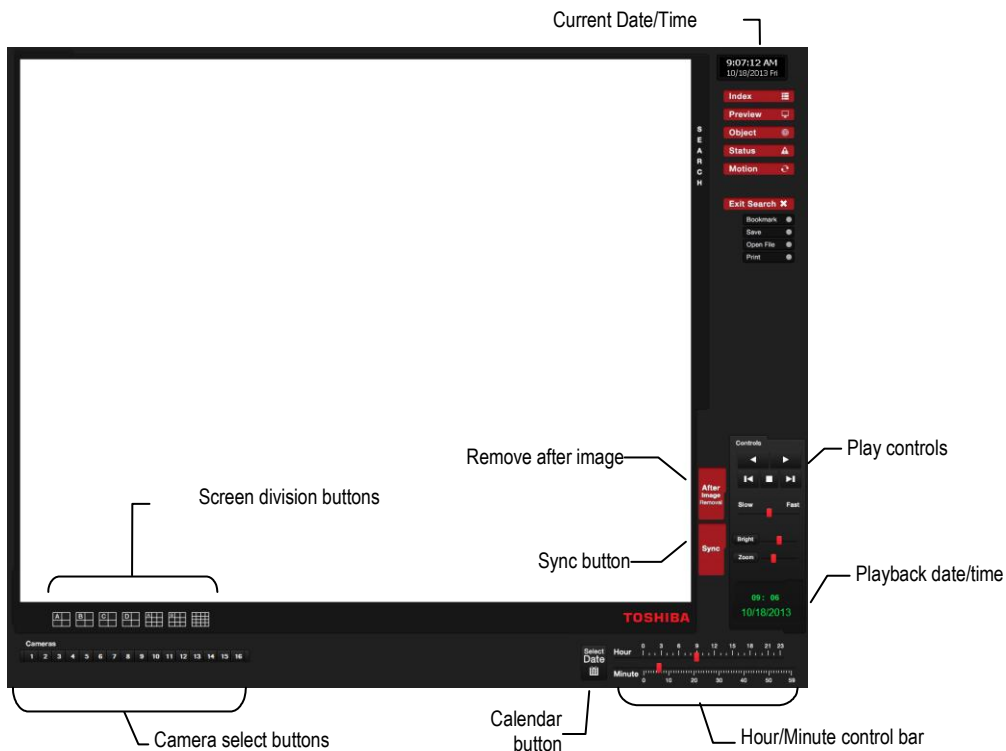
This chapter includes the following information:

- Search Overview
- Basic Search
- Printing an Image
- Daylight Savings Time
- Index Search
- Preview Search
- Status Search
- Object Search
- Motion Search
- Search in Live

SEARCH OVERVIEW

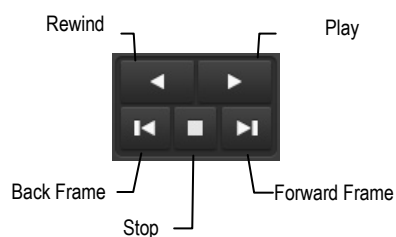
The recorder has several options that allow the user to easily find recorded video. From Motion/Sensor indexing to calendar views highlighting days with recorded video; the recorder is equipped to help you quickly find a specific video or event.

This chapter describes how to use the Search features.



Note Audio Channel buttons are only viewable when one camera is selected.

Play Controls



Back Frame

Moves video back one frame

Rewind

Rewinds video

Stop

Stops video playback

Play

Plays video

Forward Frame

Moves video forward one frame

Adjust the Brightness of an Image

Select an image to adjust by double-clicking on the desired image. Multiple images cannot be adjusted at one time.

1. Move the **Bright** slide bar to the right or left to adjust the brightness.
2. Reset the Brightness by moving the slider back to the center of the bar.

Zooming in on an Image

1. Select an image to adjust by double-clicking on the desired image. Multiple images cannot be adjusted at one time.
2. Move the **Zoom** slide bar to the right or left to zoom in or out of an image.
3. Reset the Zoom by moving the slider back to its original position on the bar.

Zooming in on a Portion of an Image

1. Right-click the area of interest on the image and select **Zoom**.
- or - Double-right-click the image.
2. Repeat to zoom in further.
3. Continue clicking the right mouse button and the image zoom will cycle back to the original size.

Open Video from a Saved Location

Previously saved video clips or backup files can be searched for content. Find file by date and time or by name.

1. Click **Open File** to search for the saved file.
2. Select a file from the list of saved clips and backup files or search by start hour.
3. Click **OK** to open the saved file.

Sync

The Time Sync option synchronizes a single channel of video to playback in real time. Ordinarily the video may playback slower or faster depending on several factors, including how many IPS recorded and number of cameras playing at the same time.

1. Select a single image to synchronize by double-clicking on an image.
2. Click **Sync**. The video will now playback in real time.

Clean Image

The recorder is capable of recording video using one of three different resolutions. When using the 720 x 480 resolution, two fields are mixed. Because of the timing gap between the two fields, according to the standardized image rules, after image might occur to high speed moving images. The recorder allows the user to remove this by clicking **Clean Image**.

PERFORMING A BASIC SEARCH

There are several different types of searches that can be performed on the recorder. The most basic involves selecting the date, time, camera, and clicking play.

1. Click **Select Date**.
2. Select a date on the calendar.
3. Select a time by clicking the up and down arrows to the right of the time display.
4. Click **OK**.
5. Select a Camera channel or Channel View.
6. Click **Play**. Video can be played forward, backward, or frame-by-frame.

PRINTING AN IMAGE

1. Search video to locate a video frame you want to print.

Note Only one camera can be selected at a time for this function to work.

2. Click **Print**. A **Print Options** window will appear. Depending on your printer, there may be several printing options available. Refer to your printer manual for more information.
3. Select your desired **Zoom**, **Scale**, and layout options.
4. Select **View Title** to include camera and recorder information on the printed image.
5. Click **Print** to print the selected image.

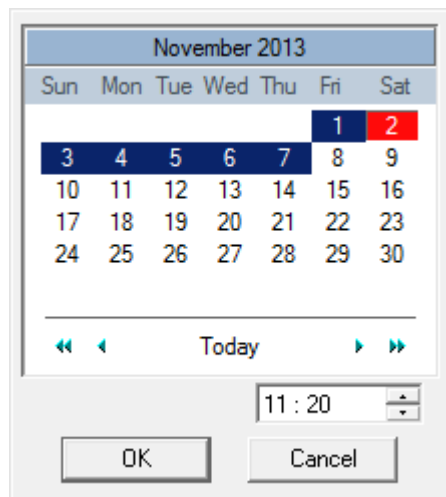
Note If no printer is installed, your recorder will freeze. If this occurs, restart your recorder, and then add a printer.

DAYLIGHT SAVING TIME

The recorder automatically adjusts for Daylight Saving Time changes. When the hour “jumps forward” no video is lost because an hour is skipped. However when the hour “falls back” there is a duplicated hour that under normal circumstances would be recorded over. The recorder actually records both hours and allows the user to select which hour to play if the need arises.

To access the ‘lost hour’:

1. On the Search screen, click **Select Date**.
2. Select the date when Daylight Saving time ‘lost’ an hour. The **Daylight Saving** option appears.
3. To play back the ‘lost hour’, select **Daylight Saving**, select 02:00 (2AM) for the time.
4. Click **OK** to confirm the date and begin playing the video using standard search features.

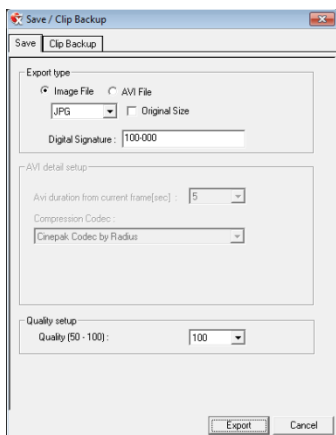


SAVE TO JPG OR AVI

Your recorder can export single images in a JPG Image file format and save video clips in an AVI format. JPG and AVI file formats are the most commonly used graphical formats today. Virtually every computer offers some type of support for these file formats which make them the most ideal formats to use. Only one camera can be selected at a time for this function to work.

Image Images can be exported in **JPG**, **PNG**, or **BMP** formats. The **JPG** format is optimized for compressing full-color or grayscale photographic images (uses lossy compression, and will create a small file size). The **PNG** format is designed to maintain more quality while still compressing full-color or grayscale photographic images (uses a lossless compression, and will create a medium file size). The **BMP** format can be used for full-color or grayscale photographic images (uses little, or no compression, and will create a large file size). Use any of these options to export a single image or frame.

AVI AVI image data can be stored uncompressed, but it is typically compressed using a Windows-supplied or third party compression and decompression module called a codec. AVI is used to export a video clip.



1. Locate your desired video or frame using the **Search** screen.

Note To save a JPG or AVI file, you can only search one camera channel at a time.

2. Click **Save**.
3. Select the **Export Type: Image File** (JPG, PNG, or BMP) or **AVI File**.

Image File

- c) Select **Quality (50-100)**. When size is not an issue, set the quality to 100.

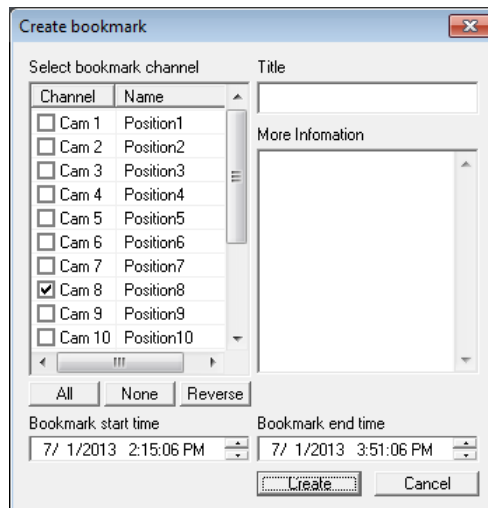
AVI File

- d) Enter the **duration** (in seconds) to save. Although suggestions are provided, a selection between 1 and 3600 can be entered manually.
 - e) Select a **Compression Codec**. Each codec provides different levels of quality, compatibility and file-size.
 - f) Select **Quality – 50 – 100**. When file size is not an issue, set quality to 100.
4. The digital signature is already entered, but can be changed if required.
 5. Click **Export**.
 6. Select a location to save the file, enter a name for the file, and click **Save**.
 - a. Click **Cancel** to exit the window without exporting file.

Bookmarks

Use bookmarks to mark a video clip during a search. Export bookmarked data using the Clip Backup feature.

1. Locate your desired video using the **Search** screen.
2. Stop playback at the beginning of the desired clip.
3. Right-click the video and select **BookMark Start**.
4. Click the play button to continue playback.
5. Stop playback at the end of the desired clip.
6. Right-click the video at the desired end point and select **BookMark End**.
7. Type a name to identify the bookmark in the **Title** field.
8. Type a memo or notes in the **More Information** box.
9. You may also select additional channels to include video at different locations recorded at the same time.
10. Click **Create**.



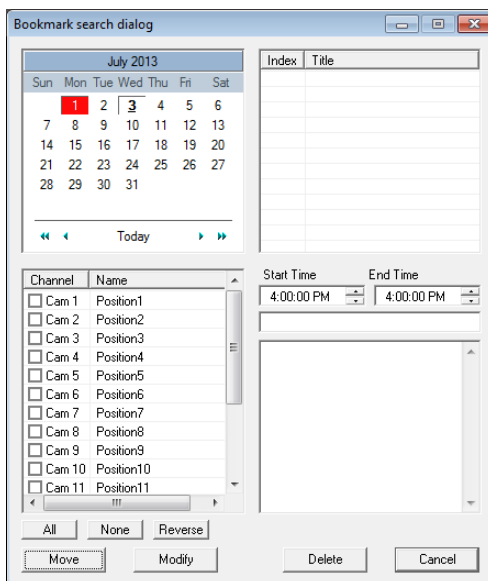
The 'Create bookmark' dialog box contains a table for selecting bookmark channels. The table has two columns: 'Channel' and 'Name'. It lists 10 channels, with 'Cam 8 Position8' selected. To the right is a 'Title' text field and a 'More Information' text area. At the bottom, there are 'All', 'None', and 'Reverse' buttons, followed by 'Bookmark start time' and 'Bookmark end time' fields with date and time pickers. 'Create' and 'Cancel' buttons are at the bottom right.

Channel	Name
<input type="checkbox"/>	Cam 1 Position1
<input type="checkbox"/>	Cam 2 Position2
<input type="checkbox"/>	Cam 3 Position3
<input type="checkbox"/>	Cam 4 Position4
<input type="checkbox"/>	Cam 5 Position5
<input type="checkbox"/>	Cam 6 Position6
<input type="checkbox"/>	Cam 7 Position7
<input checked="" type="checkbox"/>	Cam 8 Position8
<input type="checkbox"/>	Cam 9 Position9
<input type="checkbox"/>	Cam 10 Position10

Modify Bookmarks

You can modify a previously created bookmark to change the start or end time of the clip, add additional comments, change the title, or add additional cameras.

1. In the Search screen, click **Bookmark**.
2. On the calendar, select the date the desired bookmarks were created.
3. Select the desired bookmark from the list.
4. Make your desired change.
5. Click **Modify**.
6. Click **OK**, and then click **OK** again.
7. When the modification is complete, close the window.



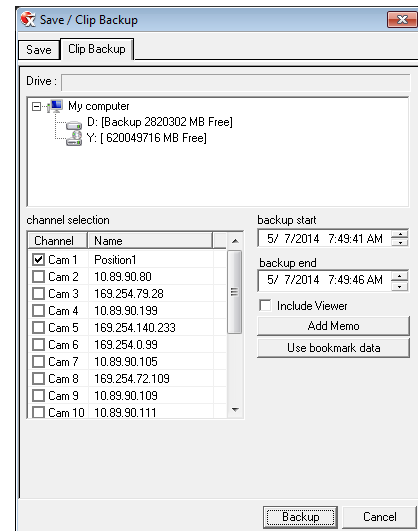
The 'Bookmark search dialog' box features a calendar for July 2013. The 1st is highlighted in red, and the 3rd is highlighted in blue. To the right is an 'Index' table with 'Title' as a header. Below the calendar are 'Start Time' and 'End Time' fields with time pickers. At the bottom, there is a table for selecting bookmark channels (11 channels listed, with 'Cam 11 Position11' selected), 'All', 'None', and 'Reverse' buttons, and 'Move', 'Modify', 'Delete', and 'Cancel' buttons.

Channel	Name
<input type="checkbox"/>	Cam 1 Position1
<input type="checkbox"/>	Cam 2 Position2
<input type="checkbox"/>	Cam 3 Position3
<input type="checkbox"/>	Cam 4 Position4
<input type="checkbox"/>	Cam 5 Position5
<input type="checkbox"/>	Cam 6 Position6
<input type="checkbox"/>	Cam 7 Position7
<input type="checkbox"/>	Cam 8 Position8
<input type="checkbox"/>	Cam 9 Position9
<input type="checkbox"/>	Cam 10 Position10
<input checked="" type="checkbox"/>	Cam 11 Position11

Clip Backup

Within the Save option, Clip Backup can also be utilized to backup a single camera or multiple channels. The Clip Backup option gives you the ability to choose a backup time frame, choose a specific camera or cameras, add memos, and even include the Backup Viewer if needed.

1. In the **Search** screen, click **Save**.
2. Select the drive from the file tree to save data to (Hard disk drive, removable drive (USB), CD/DVD drive).
3. Select your desired cameras from the list.
4. Define the **Start** and **End** time and date that you wanted to backup.
5. Select **Include Viewer** to include a copy of the proprietary Backup Viewer Software to view the clip on virtually any Windows workstation.
6. Click **Add Memo** to include additional information.
7. Click **Backup** to start the backup.

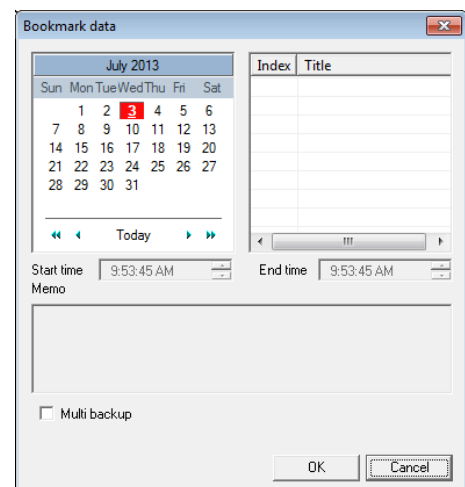


Single Clip Backup Using Bookmark Data

1. From the **Search** screen, click **Save**.
2. Select the drive from the file tree to save data to. (Hard disk drive, removable drive, CD/DVD drive).
3. Click **Use Bookmark Data**.
4. On the calendar, select the date the desired bookmarks were created.
5. Select the desired bookmark from the list.

Note To include multiple bookmarks in a clip backup, select the Multi Backup check box before selecting the desired bookmarks.

6. Select **Include** to include a copy of the proprietary Backup Viewer software to view the clip on virtually any Windows workstation.
7. Click **Backup** to start the backup.

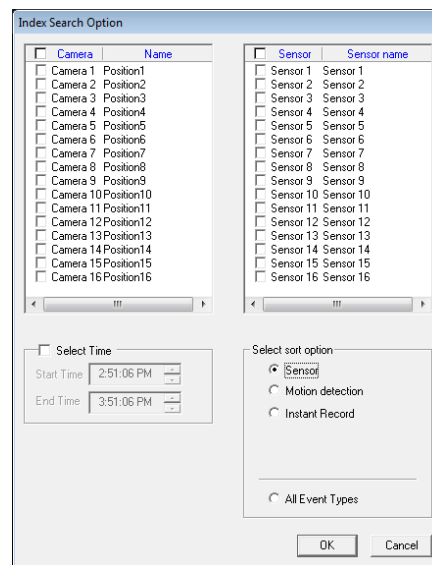


INDEX SEARCH

Using the Index Search can greatly decrease the amount of time spent searching through saved video. The Index Search allows you to perform a search based on criteria such as Sensor, Motion and Instant Record events.

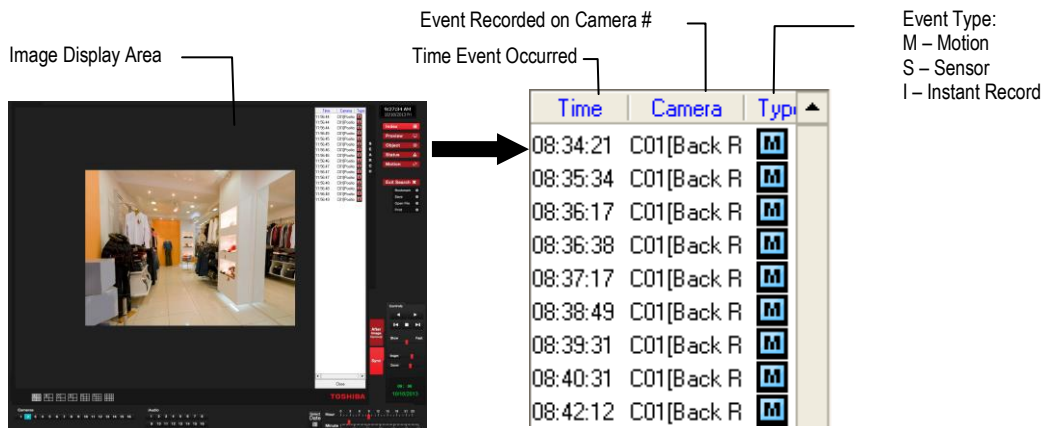
Performing an Index Search

1. Click **Calendar** on the **Search** screen to select the date to search.
2. Click **Index**.
3. Select the cameras and sensors to include in the search.
4. Select the **Select Time** check box to define a specific period.
5. Select an event type to search in the Select Sort Option section (**Sensor**, **Motion**, **Instant Record**), or select the **All Event Types** option.
6. Click **OK**. There may be a delay while results are returned. Results will be displayed in a column on the right side of the screen – Each line represents a segment of video. If no results are found, "NO IMAGE FOUND" will appear in the column.
7. Once the results are displayed, double-click any result to play the associated video.
8. Once your desired image is found, apply it to the Main Search by clicking **Close** at the bottom of the results column.



The dialog box titled "Index Search Option" contains two lists of checkboxes for selection. The left list, titled "Camera", includes 16 items from "Camera 1 Position1" to "Camera 16 Position16". The right list, titled "Sensor", includes 16 items from "Sensor 1 Sensor 1" to "Sensor 16 Sensor 16". Below these lists are two sections: "Select Time" with "Start Time" (2:51:06 PM) and "End Time" (3:51:06 PM) fields, and "Select sort option" with radio buttons for "Sensor" (selected), "Motion detection", "Instant Record", and "All Event Types". "OK" and "Cancel" buttons are at the bottom right.

Index Search Results Display



The interface shows a video player on the left with a live feed of a store interior. To its right is a table of search results. Labels with arrows point to specific parts of the interface: "Image Display Area" points to the video player; "Event Recorded on Camera #" points to the "Camera" column header; "Time Event Occurred" points to the "Time" column header; and "Event Type: M – Motion, S – Sensor, I – Instant Record" points to the "Type" column header.

Time	Camera	Type
08:34:21	C01[Back R	M
08:35:34	C01[Back R	M
08:36:17	C01[Back R	M
08:36:38	C01[Back R	M
08:37:17	C01[Back R	M
08:38:49	C01[Back R	M
08:39:31	C01[Back R	M
08:40:31	C01[Back R	M
08:42:12	C01[Back R	M

Note Index Search will present each frame recorded during an Alarm or Motion event as an individual event.

PREVIEW SEARCH

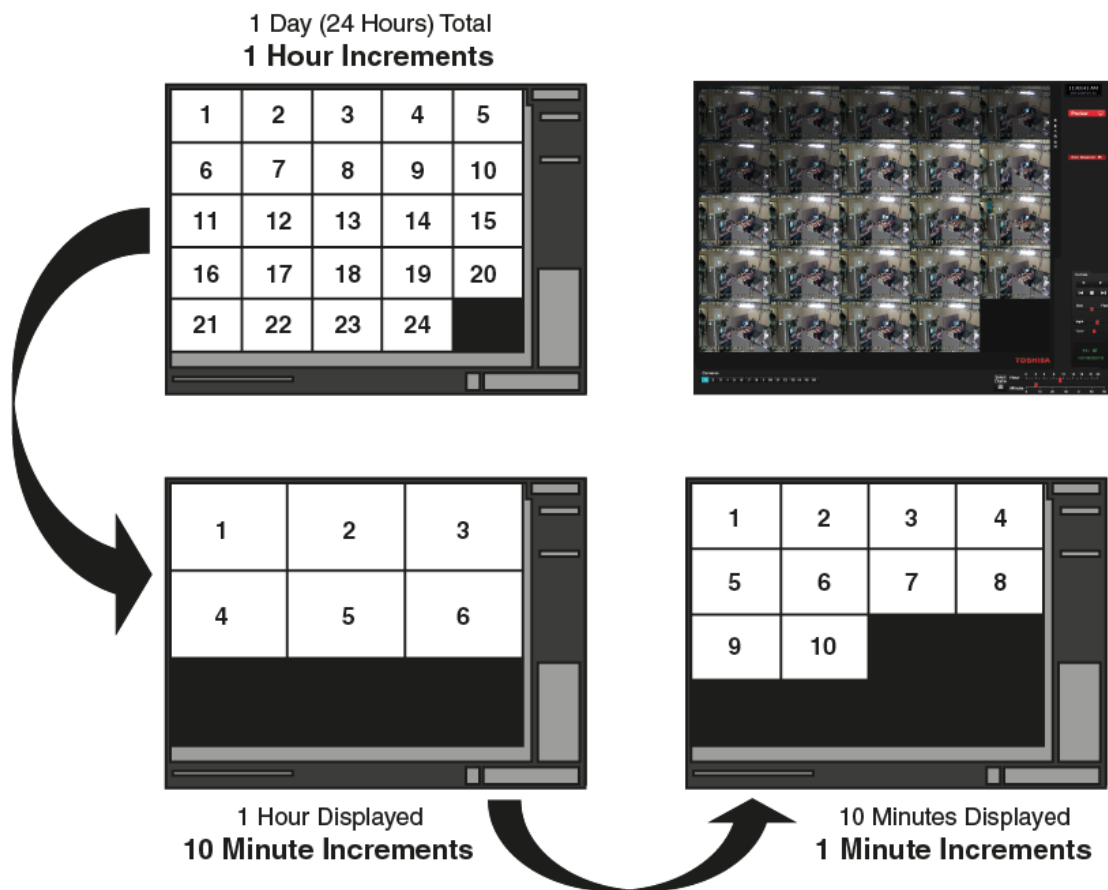
Preview Search can be used in a number of circumstances to quickly find an exact moment where an event, such as a theft, occurred. The Preview Search gives a 24 Hour visual overview of a single camera by separating a 24 hour period (1 day) into 24 images, one image for each hour of the day. The search can then be further narrowed down into ten minute increments and one minute increments by selecting one of the images displayed.

These example images show how the Preview Search functions.

The first screen that appears has 24 images displayed. Each image represents the first second of recorded video in each hour. If there is no image recorded during that period then nothing will be displayed.

When an hour is selected (by double clicking on the image), a new screen appears with 6 images. Each of these images represents the first second of video for a 10 minute segment of video within the selected hour.

Once a 10 minute segment is selected (by double-clicking on the image) the final screen appears which breaks down that 10 minute segment into 1 minute increments (10 images).



Performing a Preview Search

1. Select a single camera channel.
2. Click **Preview**. 24 images display. If there is no recorded video during a portion of the day, "No Image" will be displayed where the image would be.
3. Refine the search by double-clicking on an image to select it. 6 images display. If needed, return to the previous 24-image view by double-right-clicking on any image.
4. Refine the search by double-clicking on an image to select it. 10 images display. If needed, return to the previous 6-image view by double-right-clicking on any image.
5. Double-click an image to select the 1-minute segment of video to play. A single image displays. If needed, return to the previous 10-image view by double-right-clicking on the image.
6. Use the Play controls to play the video of the selected segment.
7. To exit out of the **Preview** search with the current image still selected, click **Preview** again.

STATUS SEARCH

The Status Search option displays video in graph format.



Performing a Status Search

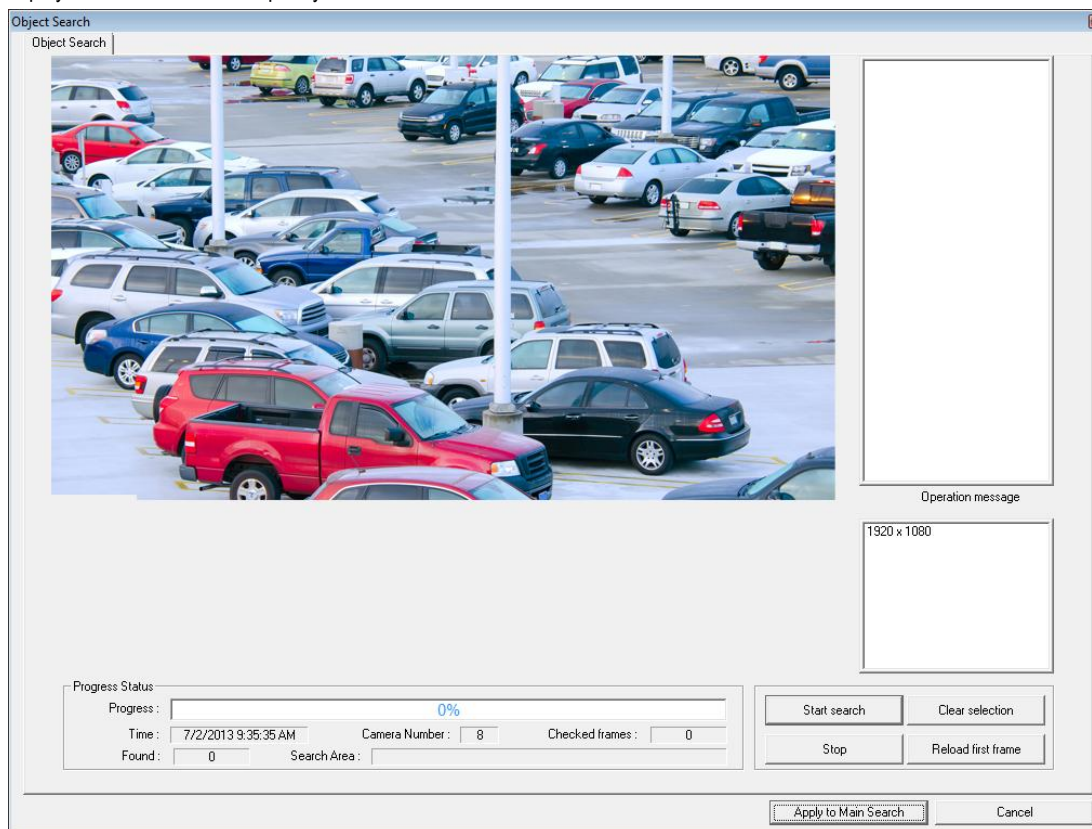
1. Click **Status** on the Search screen.
2. Click the calendar icon to select a day.
3. Click on an area of the blue recording block. Only one camera can be displayed at a time.

Note Each recording block represents a 10 minute time frame.

4. Recorded video from the corresponding camera and time block will display above.
5. Use the mouse or arrow buttons to move through recording blocks and view video.
6. To exit **Status** search with the current image still selected, click **Status** again.

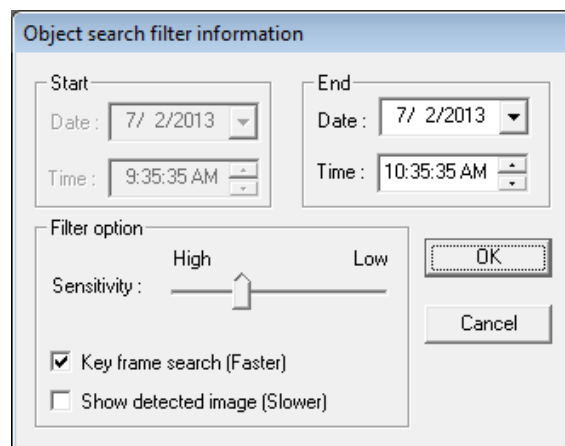
OBJECT SEARCH

Object Search is a powerful search utility that is used to search a region on the video for any motion changes. Results are neatly displayed and can be viewed quickly.



Performing an Object Search

1. Select a single camera channel.
2. Click **Object**.
3. Click and drag the mouse on the video display to define a motion region area. Resize by pulling on the small square boxes located on the outer perimeter of the area.
4. Click **Start Search**, the **Object Search Filter Information** window will open.
5. Select an **End** date/time.
6. Adjust the sensitivity if necessary.
7. Click **OK**.
8. Select a motion event from the search results list displayed on the right
9. Click **Apply to Main Search** to display the selected image in the main **Search** screen and to use play controls.
10. To start a new object search using the original image, click **Reload First Frame**.
11. To exit **Object** search without selecting an image, click **Cancel**.



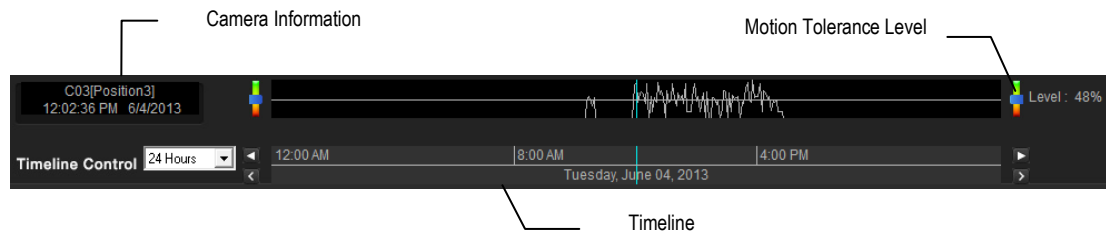
MOTION SEARCH

The Motion Search provides a dynamic display of the levels of motion in recorded video. Adjust the level of motion to only play clips of video at or above that level.

To enable motion data to be saved for Motion search, ensure that you select the following settings:

1. On the **Motion** setup page under **Motion Regions**, select **Detect Detail Motion Area**.
2. On the **General** setup page under **Display**, select **Motion Detect on Continuous Recording**.

Note Motion Search is only available for newly recorded video; it is not compatible with video recorded prior to installing version 3.6.



Performing a Motion Search

1. Select a single camera channel.
2. Click **Motion**.
3. Click the calendar icon to select a day.
4. Adjust the motion level line.
5. Adjust the timeline display settings.
6. Click the **Play** button to start playback.
7. To exit **Motion** search with the current image still selected, click **Motion** again.

Tip You can drag the blue line on the Timeline or motion level box to adjust the time.

AUDIO PLAYBACK

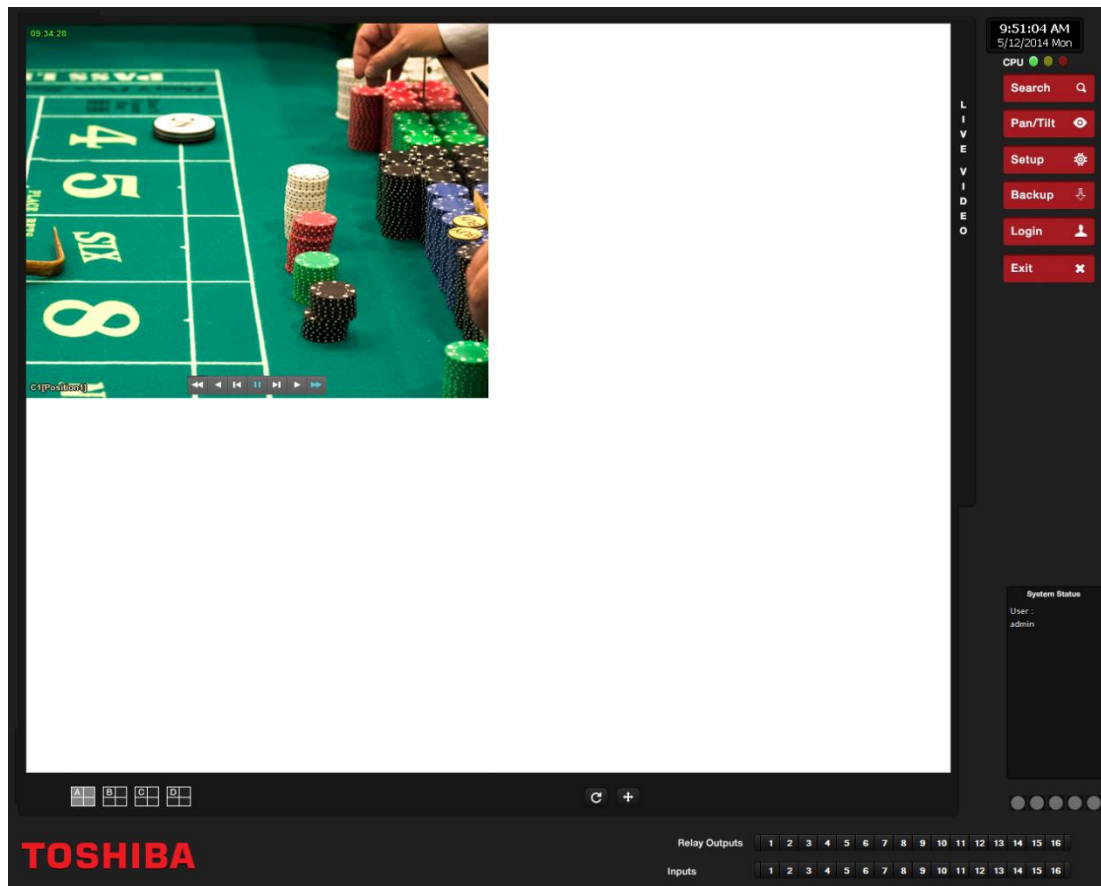
Audio is played back at 48,000Hz.


To play audio with the video:

1. Select a single camera channel. The audio options will be displayed in the lower right.
2. Select a single audio channel to play. When an audio channel is selected, **Sync** will be automatically selected.
3. Click **Play**.

SEARCH IN LIVE

The Search in Live feature allows users to review events immediately while monitoring live video. Pause, rewind, and resume live video within seconds of an alarm event or suspicious activity.



1. Move the mouse cursor over the desired live video display on the Live Display screen.
2. Right-click and choose **Search In Live** (or click the scroll wheel on the mouse).
3. The Search In Live controls will display at the bottom of the image.
4. Use the controls to pause, rewind, move frame-by-frame or resume playing as desired.

5. To exit Search in Live, click the scroll wheel on the mouse in the camera area you have been searching.

PAN / TILT / ZOOM

This chapter includes the following information:

- Overview
- Setting up the PTZ
- Creating and Viewing a Preset Position
- Creating and Viewing a Preset Pattern

PAN /TILT / ZOOM OVERVIEW

The PTZ controls within the recorder allow you to control PTZ cameras without accessing them directly. This can increase the usefulness of your recorded video. Using the PTZ controls, you can create custom preset configurations that can continuously sweep across large areas.

Note These instructions are for use with Analog PTZ cameras only. For IP PTZ cameras, please refer to the PTZ Camera Setup section of this manual.

Note PTZ setup and control is only available for supported video encoders with a PTZ RS-485 pass-through.


Basic PTZ Configuration

1. On the Live screen, click **Setup**, and then click **PTZ Setup**.
2. Select a PTZ-enabled camera from the **Select Channel** list.
3. Select **Enable Pan Tilt Connection**.
4. Click **Select Protocol** and select the appropriate protocol for your PTZ camera. For information on the protocol used by your PTZ camera, refer to your camera manual.
5. Set the appropriate **Port**, **Baud Rate**, **Parity**, **Data Bits**, and **Stop Bits**. These settings must match those of your PTZ camera. For more information, refer to your camera manual.
6. Click **Apply** to save your settings.

Select Channel

[Camera 01] : Position 1

Connection Information

 Enable and configure Pan Tilt Zoom controls for the selected camera.

☒ Enable Pan Tilt Connection

Select Protocol

Port

Baud Rate Data Bits

Parity Stop Bits

ADVANCED PTZ SETUP

General

The General tab in PTZ Setup allows you to reverse PTZ direction function if necessary, enable the use of Onscreen Compass for PTZ control, set the speed for your camera, and set the camera ID.

The screenshot shows the 'General' tab of the PTZ Setup interface. It includes sections for 'General Options', 'PTZ Status on Close', 'Speed', and 'Address Setting'. Annotations with arrows point to specific features: 'Reverse PTZ controls' points to the 'Reverse PTZ' checkbox; 'Enable Onscreen Compass' points to the 'Onscreen Compass' checkbox; 'PTZ status when closing PTZ controls on recorder' points to the 'Stay put' radio button; 'Adjust Speed Settings' points to the 'Pan' and 'Tilt' speed controls; and 'PTZ Address Settings' points to the 'RX Address 1' and 'RX Address 2' dropdown menus.

General Presets/Tours

General Options

☐ Reverse PTZ

☐ Onscreen Compass

PTZ Status on Close

☒ Stay put ☐ Go to preset

☐ Stay tour

Speed

Pan 0 ◀ ▶

Tilt 0 ◀ ▶

Zoom 0 ◀ ▶

Focus 0 ◀ ▶

Address Setting

RX Address 1 00 Previous ID

RX Address 2 00 New ID

Set ID

PT Driver Address 1

PTZ Address Settings

- Some protocols support software address settings.
- The RX-Addresses and ID settings are compatible with a particular line of receivers that support 2 ID addresses.
- The PT Driver Address is associated with the PTZ ID address set on the camera. The addresses must match for the recorder to communicate with the proper PTZ camera. This is especially important when a large number of PTZ cameras are connected to the recorder.

Note To select a PT Driver Address of 129-256, manually enter the ID in the box.

PTZ Presets/Tours

A Preset Position is a user-defined location where the camera can be pointed, zoomed-in, and focused. Preset positions can be defined and labeled if the camera supports this. Configure these functions using the Presets/Tours tab.

Creating a Preset

1. In the Live view, click **Setup**, and then click **PTZ Setup**.
2. Select the PTZ camera you want to configure in the **Select Channel** list.
3. Click the **Presets/Tours** tab.
4. Move the selected camera to your desired position.
5. In the **Preset** section, select a **Preset #** (1-10), and then click **Set**.

Note Preset positions can be created using the advanced buttons on the PTZ graphical controller.

Viewing a Preset

1. Double-click on a PTZ camera channel on the Display screen.
2. Click **Pan/Tilt** to enable the **Graphical PTZ Controller**.
3. Click your desired **Preset** number on the controller.

ACCESSING PTZ MENUS

Some protocols support the ability to access the Internal PTZ Onscreen menu.

Since every PTZ camera is different, the function of these options can vary slightly.

The Surveillix recorder provides an easy way to access the camera options. For explanations of what those options are, please refer to the user manual for the camera.

Note Use the arrow buttons on the PTZ controller to move through the PTZ menu options and/or highlight options.

CONTROLLING A PTZ CAMERA

Surveillix recorders provide control for a PAN/TILT/ZOOM camera in two different ways.

- Use the Graphical PTZ Controller that appears when the PTZ button is clicked on the Display screen.
- Use the mouse to control the camera directly from the live video display (On-Screen Compass)

Using the Graphical PTZ Controller

1. In the Display screen, click **Pan/Tilt**.
2. Click the viewing area of the PTZ camera you want to control.
3. Use the Arrow buttons to control the direction of the PTZ camera.
4. To select a new camera, click the video display of a different camera on the Display screen display.

Note Eight directions are available only for select cameras. Only four of the PTZ Control buttons work for all protocols (UP, DOWN, LEFT, RIGHT).

Note The Advanced menu panel on the graphical PTZ controller can be used to set PTZ preset positions (on supported cameras), as well as move to presets up to 254.

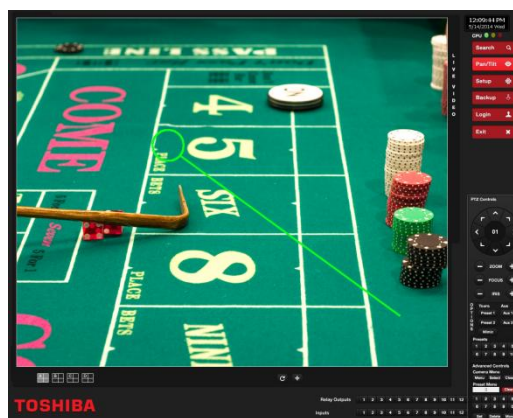
5. To exit the Graphical PTZ Controller, click **Pan/Tilt** again.



Using the On-Screen Compass

1. On the Live screen, click **Setup**.
2. Click **PTZ Setup**.
3. Select the **Camera Channel** of the PTZ camera you want to enable Onscreen Compass control for.
4. In the **General** tab, select **Onscreen Compass**.
5. Click **Apply**.
6. Close the Setup window to return to the Live screen.
7. Click **Pan Tilt**.
8. Control the PTZ camera by clicking and dragging the mouse on the screen in the desired direction.

Note A green line will appear to show the direction in which the PTZ camera will move. The shorter the line, the less the PTZ will move. The longer the line, the more the PTZ will travel in the specified direction.



Understanding Tours

Tour Method – Select a **Tour** to program.

Setting: Start Pos / End Pos – Define a Mimic Tour. The Start Position button begins the recording process. The Stop Position ends it.

Privacy Zone – Define an area that the camera will not view to create a Privacy Zone.

Pan Swing / Tilt Swing – This option enables the Horizontal (Pan) or Vertical (Tilt) Guard Tours.

Travel Speed – The speed between one Preset Position to the next

Dwell Time – The length of time (in seconds) that a PTZ Tour displays a Preset Position

Run / Stop – Runs the selected Pan or Tilt tour

The 'Tours' window contains the following elements:

- Tour Method:** Radio buttons for 'Preset Tour' (selected), 'Preset Tour2', and 'Mimic'.
- Position:** 'Start' and 'End' buttons.
- Privacy Zone:** 'Select' and 'Deselect' buttons.
- Travel Speed:** A numeric input field with left and right arrow buttons.
- Dwell Time (sec):** A numeric input field with left and right arrow buttons.
- Run / Stop:** Two buttons at the bottom left.
- Tour Schedule:** A button at the bottom right.

PTZ Tour Schedule

The 'PTZ Tour Schedule' window includes:

- Camera Info:** 'Channel: 1'.
- Tour Schedule:** A grid with days of the week (ALL, SUN, MON, TUE, WED, THU, FRI, SAT) on the y-axis and hours (0-23) on the x-axis. A blue square is selected at hour 0 on Sunday.
- Preset tour mode:** Radio buttons for 'Preset Tour' (selected), 'Preset Tour2', 'Mimic', and 'Go to Preset #'. Each has a corresponding color-coded dropdown menu.
- Buttons:** 'Select', 'Clear', 'OK', and 'Cancel'.

Annotations in the image:

- A bracket on the left labeled 'Days of the week' points to the day headers of the grid.
- A line on the right labeled 'Hours 0-23 (24 hours)' points to the hour headers of the grid.

1. In the Live screen, click **Setup**, and then click **PTZ Setup**.
2. Select the PTZ camera you want to configure from the **Select Channel** list.
3. Click **Tour Schedule** to open the PTZ Tour Schedule window.
4. Click and drag the pointer to select blocks of time (hours 0-24) on the desired days of the week.
5. Click **Select**.
6. When finished, click **OK** to save changes and close the window.

BACKING UP VIDEO DATA

This chapter includes the following information:

- Overview
- Saving Video to a DVD
- Saving Video from a Single Camera
- Scheduling Regular Video Backup

BACKUP OVERVIEW

The Backup Center allows you to back up recorded video data from multiple dates and times to one or more locations including the DVD-RW drive, Network Storage Locations, and External Hard Drives.

The recorder can easily backup important video data to an internal or external media location. The most commonly used forms of this are CD-Rs, DVD-Rs, External USB or FireWire Hard Drives, and Network Drives. Every recorder comes equipped with a DVD-RW drive, USB port, and Network Adapter.

The recorder is capable of performing a backup to multiple CD/DVDs when the file sizes exceed the capacity of a single disk. You may also specify multiple locations for backup as well as the order they are recorded to.

The recorder backs up video data using a proprietary compression format that can only be read by the Surveillix Backup Viewer software. This ensures the integrity of the data.

Throughout the backup process the recorder will continue recording data without interruption. This is the result of the tremendous multiplexing power of the recorder, which allows it to perform virtually all functions without disrupting the recording process.

Nero® Express

The recorder uses Windows® 7® Embedded running Nero® Express 9.0 to write data to the DVD-RW Drive. This solution allows the recorder software to read and write data to the DVD-RW Drive without formatting the disk first.

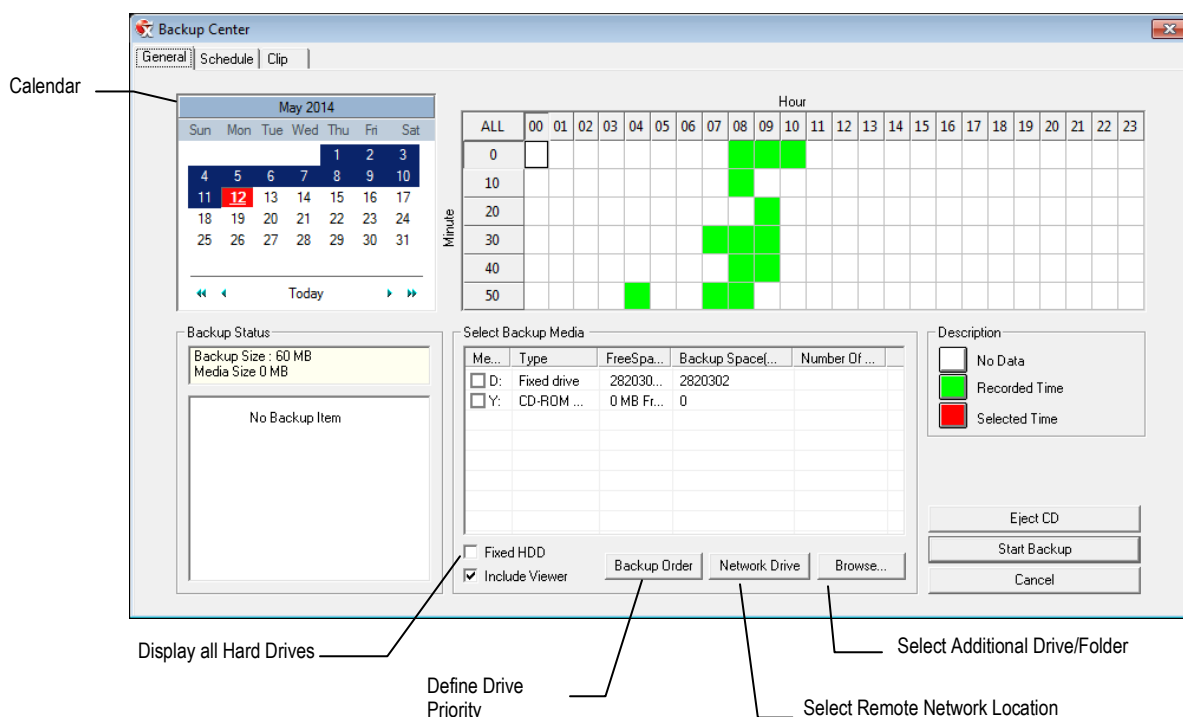


Caution

Although many features are available within Nero, it is highly recommended that you do NOT use any features other than those necessary for the standard backup of video data as outlined in this section, loss of information or software instability may result.

General Backup Overview

The General Backup screen is used for performing bulk backup of video recorded by all cameras for a selected period, or periods, to a specified storage location.



Hour / Minutes

Recording data displays in hourly (24 vertical columns) and 10-minute (6 horizontal rows) segments. Green cells indicate time with recorded video. Red cells indicate time selected for backup.

Backup Status

Displays the size of all video currently selected for backup, the available size of the media currently selected for backup to, and the dates and times of video currently selected for backup.

Fixed HDD

Display all Hard Drives.

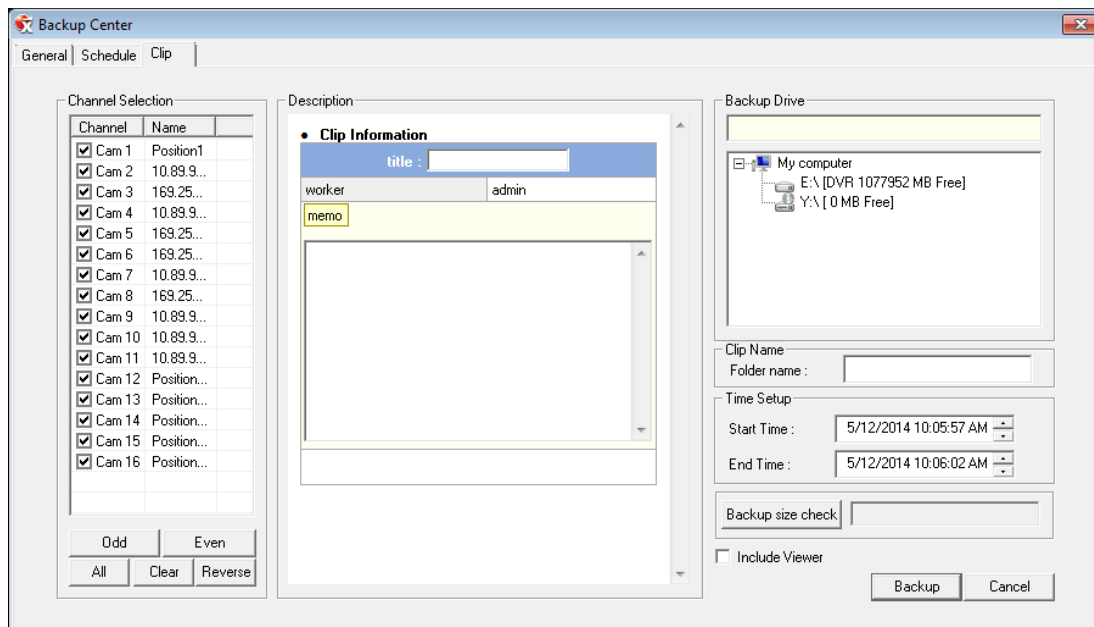
Note Disks must be named **Backup** in order to be recognized. If you do not see your desired drive, exit to Windows and re-name your drive.

Performing a General Backup

1. In the Display screen, click **Backup**.
2. Select the date or dates to back up using the calendar. Dates highlighted in blue contain recorded data.
3. Select the blocks of time to back up using the Hour/Minute grid. Blocks of time with recorded video are highlighted in green. Blocks of time selected for backup are highlighted in red.
4. Select the backup drive or drives in the **Select Backup Media** section, or click **Network Drive**, or **Browse**. When selecting the CD-ROM drive you must specify the number of CDs to use for backup.
5. Click **Backup Order** to set the backup order.
6. Select the **Include Viewer** check box to include the Backup Viewer Application.
7. Click **Start Backup** to begin the backup process. A progress bar will display in the lower right corner of the Display screen.

Clip Backup Overview

The Clip Screen is used for backing up video recorded by individual cameras for a selected period of time to a specified storage location.



Performing a Clip Backup

1. On the Display screen, click **Backup**.
2. Click the **Clip** tab.
3. Set the **Start Time** and **End Time** under Time Setup.
4. Select the cameras to back up in the **Channel Selection** box.
5. Select the **Backup Drive** to save the backup video to.
6. Type the **Folder Name** for the clip files under **Clip Name**.
7. Select **Include Viewer** to include the Backup Viewer software.
8. Enter pertinent clip information into the **Clip Information** section in the Description box.
9. Click **Backup Size Check** to confirm the file size of the clip backup.
10. Click **Backup** to begin the backup process. A progress bar will be displayed in the lower right corner of the Display screen.

Scheduled Screen Overview

The Scheduled Backup Screen is used for performing bulk backup of video recorded by all cameras on a regular scheduled basis (1-24 hours). The Scheduled Backup Screen is similar to the General Backup Screen.

Activating Scheduled Backup

In order to use the Scheduled Backup feature, you must first activate the function for your Server software. You only need to do this once to enable scheduled backups.

1. On the Live screen, click **Exit**, and then select **Restart in Windows Mode**.
2. Click **OK**.
3. Click **Start**, and then click **vFormat**.
4. In the **Need for Scheduled Backup** area, click **Confirm Windows System Password**.
5. Type your Windows System **ID** and **Password**.

Note The default **ID** is DVR Admin, and the default **Password** is dvr4321.

6. Click **OK**.
7. Close the DVR Utility window, and then double-click **Surveillix Server** to restart your Server software.

Specifying Scheduled Backup Drives

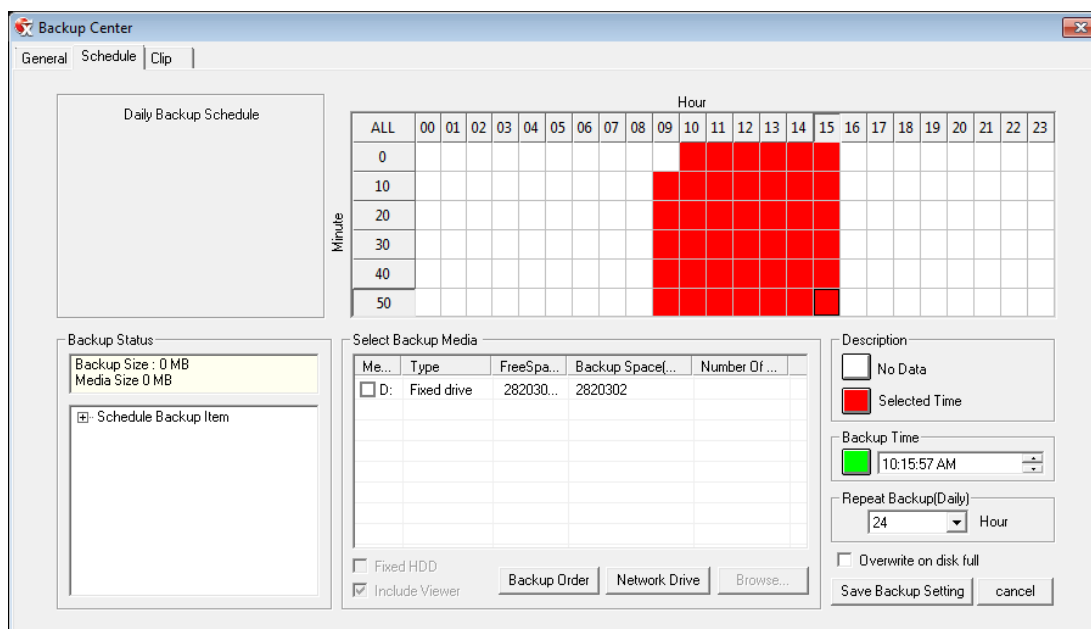
In order to use the Scheduled Backup feature one or more storage drives or partitions connected to the recorder must be specified as a backup drive.

1. From the Display screen, click **Exit** and choose **Restart in Windows Mode**.
2. Click **OK**.
3. Double-click **My Computer**.
4. Right-click on the drive to specify as a backup drive for Scheduled Backup and click **Rename**. Rename the drive to 'Backup'. Repeat this process for all drives to use for Scheduled Backup. To remove a drive from use for Scheduled Backup, change its name to something other than 'Backup'.
5. Restart Surveillix and return to the **Schedule** tab in the **Backup Center** window.

Note The C: Drive CANNOT be used as a backup location; this is done intentionally to protect the operating system.



Performing a Scheduled Backup



1. Click **Backup** on the Display screen.
2. Click the **Schedule** tab at the top of the Backup Center window.
3. Select the blocks of time to back up using the **Hour/Minute Grid**. Blocks of time with recorded video are highlighted in green. Blocks of time selected for backup are highlighted in red.
4. Set the **Backup Time** to perform the backup.
5. Set the **Repeat Backup (Daily)** time to specify the number of hours between backup procedures (between 1 and 24 hours).
6. Select the **Backup Drive** to save the backup video under **Select Backup Media** or click **Network Drive**. To save to a local drive or partition you must first rename the location "BACKUP".
7. Select **Overwrite on Disk Full** to overwrite previous backup files when the disk becomes full.
8. Click **Save Backup Setting** to save the current backup setting and return to the Display screen.

LAN / ISDN / PSTN CONNECTIONS

This chapter includes the following information:

- Overview
- Configuring TCP/IP Settings
- Connecting to a LAN
- LAN / ISDN / PSTN Connections

LAN OVERVIEW

The recorder can be easily connected to a Local Area Network (LAN) and uses Microsoft's® powerful and secure Windows® 7 Embedded operating system. This allows for easy and well-documented instructions on setting up LAN connections no matter what type of LAN you want to use.

A LAN is a group of computers and other devices dispersed over a relatively limited area and connected by a communications link that allows one device to interact with any other on the network.

There are many reasons why using Microsoft® Windows® 7 Embedded is superior to other platforms when running on a LAN. The number one reason is security. Windows 7 Embedded is based on the Microsoft's Windows platform, which, historically has boasted the most reliable and secure operating system in the world. Running the recorder on a secure network is important to prevent unwanted users from gaining access to confidential information. Unwanted users can compromise the integrity of the confidential data being stored and viewed, and in extreme circumstances can cause irreparable damage to the network.

Since connecting the recorder to a network can be extremely complex (depending on the network), this Surveillix recorder manual will cover only the basics. It is suggested that the recorder administrator consult the Vendor or IT Administrator before attempting to create or connect to a LAN.

CONNECTING TO A LAN USING TCP/IP

The networking options of the recorder can be created and modified via the standard networking options available on Windows 7 Embedded. The recorder comes equipped with a 10/100/1000 Network Interface Card (NIC). This card uses a standard RJ-45 connector, and should be connected using CAT5 Ethernet cable to achieve optimal communication speeds.

Configuring TCP/IP Settings

1. On the Display screen, click **Exit** and select **Restart in Windows Mode**.
2. Right-click Network on the desktop and select **Properties**.
3. Click **Local Area Connection**.
4. Click **Properties**.
5. Select **Internet Protocol Version 4 (TCP/IPv4)**, then click **Properties**.
6. Select **Use the Following IP Address** option. Enter the **IP Address** and **Subnet** mask appropriate for the network. It is recommended to contact the Network Administrator for appropriate IP settings.
Example:
 - a. Common IP addresses are 192.168.0.25 or 10.0.0.25
 - b. Common Subnet masks are 255.255.255.0 or 255.0.0.0

Note In order to connect to the recorder through a remote LAN connection, a static IP address must be assigned. If the network assigns the IP address automatically (DHCP), contact the Network Administrator for help assigning a static IP address.

7. If the network requires you to specify the DNS information, enter it now by selecting the appropriate DNS options.
8. When finished configuring the TCP/IP settings click **OK** to close the **Internet Protocol (TCP/IP) Properties** window.
9. Click **Close** and then **Close** again to close both **Local Area Connection Properties** windows.

LDAP INTEGRATION

This chapter includes the following information:

- Installing LDAP

FEATURES

The instructions below are for LDAP with Server Software version 3.6.36 and above.

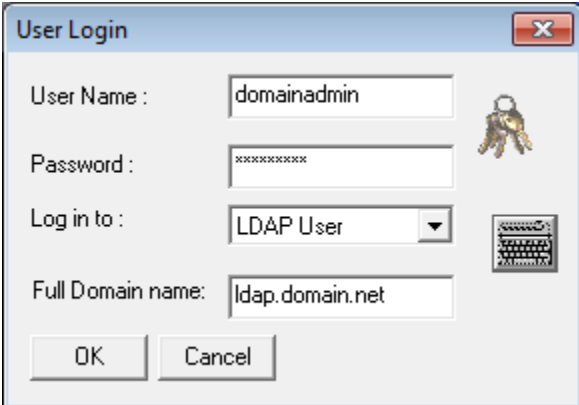
- The recorder server does not need to be joined to the Domain. The recorder server will query the LDAP server for accounts and authorization levels.
- The recorder server creates groups within LDAP for each of the permissions on the recorder. Simply join a Domain user to these groups to provide access to that function in the recorder.
- Recorder access within LDAP is based on the Site Code within the recorder software. This allows an administrator to group recorders with the same Site Code.
- Remote and Multi-Site management software works with LDAP logins.

INSTALLING ACTIVE DIRECTORY

Required Items

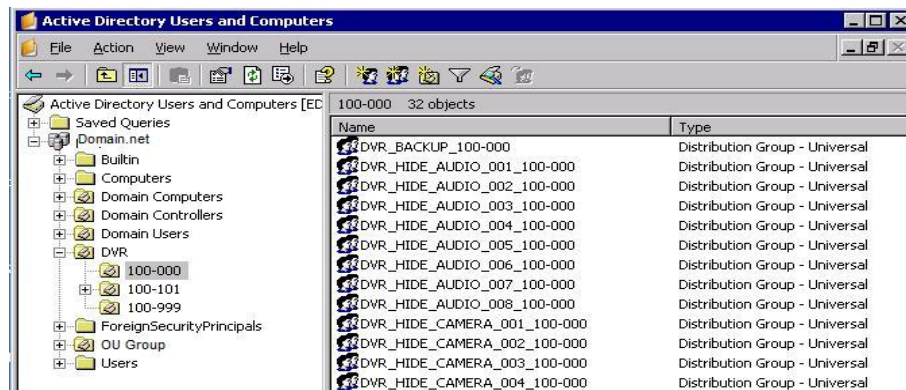
- Name of LDAP server.
 - Account in LDAP server that has Domain Admin rights. This user will be used initially to create the OU's and Groups within LDAP.
1. Verify that the recorder server is connected to a network that has a valid LDAP server.
Ensure that the TCP/IP settings are configured correctly for DNS resolution and gateway if needed.
Check to verify that you can ping the LDAP server without issues.
 2. Set up DVR Site Code to be used for LDAP authorization. The default will be 100-000. This site code can be used to group recorders together within LDAP.
 - g) Log in to the recorder using the local recorder administrator account (non-Active Directory).
 - h) Navigate to the **Setup -> Information** tab and change the **Site Code**.
 3. Log on to the recorder server with the domain account with administrator privileges (see above required items).
If successful, the recorder will log the administrator user on without any error messages. You may log off the recorder once this is completed without errors.

Note If you encounter an error please verify that the above required items are correct.



The image shows a 'User Login' dialog box with a blue title bar and a close button (X) in the top right corner. It contains four input fields: 'User Name' with the text 'domainadmin', 'Password' with masked characters 'xxxxxxxxxx', 'Log in to' with a dropdown menu showing 'LDAP User', and 'Full Domain name' with the text 'ldap.domain.net'. To the right of the password field is a key icon, and to the right of the 'Log in to' dropdown is a keyboard icon. At the bottom are 'OK' and 'Cancel' buttons.

4. Go to the Active Directory Users and Computers application. You should now see an OU called DVR with an OU inside of it named the same as the Site Code above (example 100-000).



5. You can now add users within Active Directory to the groups the recorder has created. When a user belongs to a group he or she will have access (or be denied access in the case of Audio or Camera channels) to that permission on any recorders with that site code.

Group	Description
DVR_BACKUP_100-000	Backup access to DVRs with site code 100-000
DVR_HIDE_AUDIO_0XX_100-000	Hides audio channel XX for site code 100-000
DVR_HIDE_CAMERA_0XX_100-000	Hides camera XX for DVRs - site code 100-000
DVR_INSTANT_100-000	Instant recording access to DVR
DVR_PTZ_100-000	PTZ access to DVRs - site code 100-000
DVR_PTZEX_100-000	Access to advanced PTZ control
DVR_RELAYOUT_100-000	Access to toggle relays from live view
DVR_SEARCH_100-000	Access to search on DVRs - site code 100-000
DVR_SETUP_100-000	Access to setup on DVRs - site code 100-000
DVR_SHUTDOWN_100-000	Grants the ability to shut down the DVR server

Note The above site codes may be different depending on what site code the recorder server had when it was logged into LDAP.

6. You can now log in to the recorder server using any of the Active Directory users who belong to one of the above groups.

WEB VIEWER

This chapter includes the following information:

- Overview
- Configuring the Web Viewer

WEB VIEWER OVERVIEW

The recorder allows you to access video using Microsoft® Internet Explorer® 7 and above.

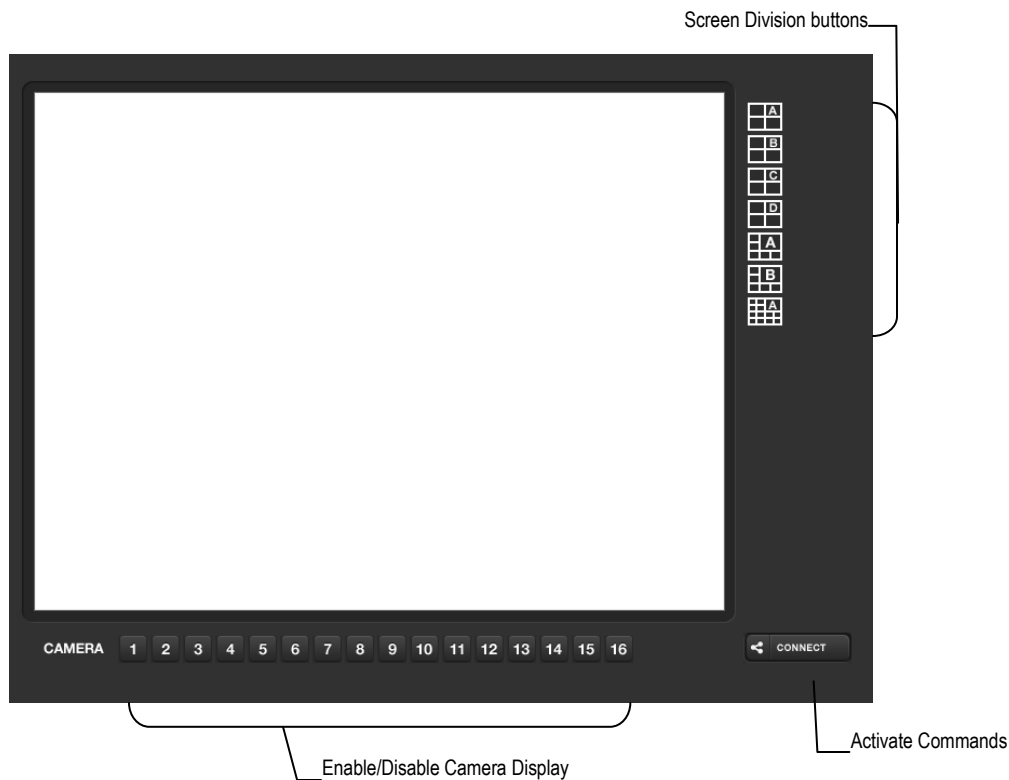
Highlights:

- View Live Video from most computers
- Username and Password protected
- Easy to use graphical interface

Basics:

75 users can access the Web Viewer simultaneously (if network bandwidth allows). The Web Viewer is an easy, secure way to view live video from virtually any computer with an internet connection using Microsoft Internet Explorer.

In order to log in to the recorder server, a user account must be made for the user. This ensures that only authorized personnel are allowed to log in. In addition, each user can be assigned different privileges that allow them or deny them access to different cameras. For example: a user can be granted access to only view cameras 4, 8 and 16.



Configuring the Recorder for Remote Connection

1. In the Display screen, click **Setup**.
2. Click **Network Setup**.
3. Select **Enable Web Viewer**.

Note If you are using a Firewall, it may be necessary to adjust the port settings on both the recorder and the Firewall. Contact the Network Administrator for more information.

4. Click **Apply**.

Note If no additional user accounts have been created the administrator account will be the only account that can connect to the recorder remotely.

5. The recorder server is now ready to receive incoming connections from Remote Software, SCS, the Surveillix App, or the Web Viewer.

Connecting to a Recorder Using Web Viewer

1. Open Microsoft Internet Explorer.
2. Type the IP address of the recorder into the Address Bar.
3. When attempting this for the first time on a workstation a prompt will ask you to accept an ActiveX installation. Select **Yes**.

Note If you receive a message saying Internet Explorer® security settings do not allow you to download ActiveX components then you will need to adjust the browser security settings. One way to do this is to add the IP address of the recorder to the trusted sites list inside Internet Explorer® settings. Contact your System Administrator for additional help with adjusting Internet Explorer settings.

4. When the Web Viewer finishes loading, click **GO!**
5. Type the **Username** and **Password** of an authorized user.
6. The cameras will display.

Closing the Web Viewer

To exit the Web Viewer close Internet Explorer.

INCLUDED SOFTWARE SETUP

This chapter includes the following information:

- The Surveillix App Overview
- Emergency Agent Overview
- Remote Software Overview
- Digital Verifier
- Backup Viewer

THE SURVEILLIX APP OVERVIEW

The Toshiba Surveillix App software, available for iPhone, Android, and Blackberry, allows you to access your Surveillix recorder from almost anywhere on your mobile device. The Toshiba Surveillix App gives you the ability to view live video from your cameras using a simple interface.

For a list of supported models, installation instructions and download links, go to http://www.toshibasecurity.com/mobile_apps.jsp

EMERGENCY AGENT OVERVIEW

The Emergency Agent software is a utility that streams video across a Local Area Network to a Client PC when an alarm is detected on the recorder. The video that streams across can be stopped, played forwards and backwards, in slow motion or real speed.

The utility is loaded at startup and placed in the taskbar. It constantly monitors for a signal from the recorder. When an alarm signal is detected the Emergency Agent Image Viewer window opens and starts playing the video from the camera associated to the alarm.

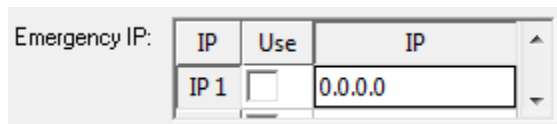
Configuring the Recorder

To enable the Emergency Agent on the recorder follow these steps:

1. From the Display screen, click **Setup**.
2. Click **Camera**.
3. Select a camera and associate sensors to that camera using **Sensor Connection** option.
4. Click **Network** and make sure that **Disable Remote Control** is cleared.

Note The Emergency Agent uses one port to transfer the data through the network (the Emergency Port). The port can be adjusted inside the Network menu if necessary. It is recommended that the default setting should be used unless the port must be changed.

5. Click **Schedule**.
6. Enter the IP Address of the workstation running the Emergency agent software under Emergency IP section.



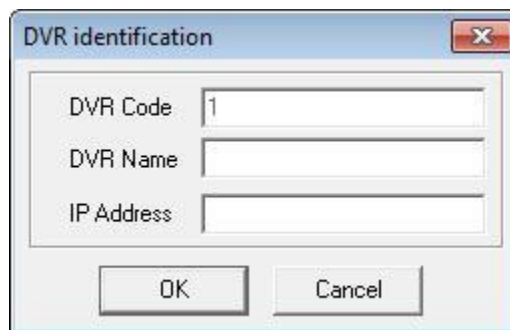
Emergency IP:	IP	Use	IP
	IP 1	<input type="checkbox"/>	0.0.0.0

7. Click the box next to the IP Address to enable it.
8. Select the **Sensor** option and create a schedule for the appropriate sensor (see the Schedule Setup chapter in this manual for further details).
9. Click **Apply**, then click **Exit Setup**.

Configuring the Client PC

All configurations take place in the Emergency Agent window on the Client PC for descriptions and locations of the buttons and features of the Emergency Agent window refer to the Emergency Agent window section later in this chapter.

1. Open the Emergency Agent window on the Client PC - **Start > All Programs > Surveillix > Emergency Agent > Emergency Agent**.
2. Right-click in the **DVR List** and select **New**. Enter the **DVR Code**, **DVR Name**, and **IP Address** of the recorder.
3. Click the **Options** menu and select **Setup**.
4. Confirm that the **Network Port** in the **Setup** window is set to the same number as the Emergency Port in Network Settings on the recorder. If the numbers are different adjust the **Network Port** on the client PC to match the recorder.
5. Click **OK**.
6. Restart the **Client PC**.



Setup Window

Network Port

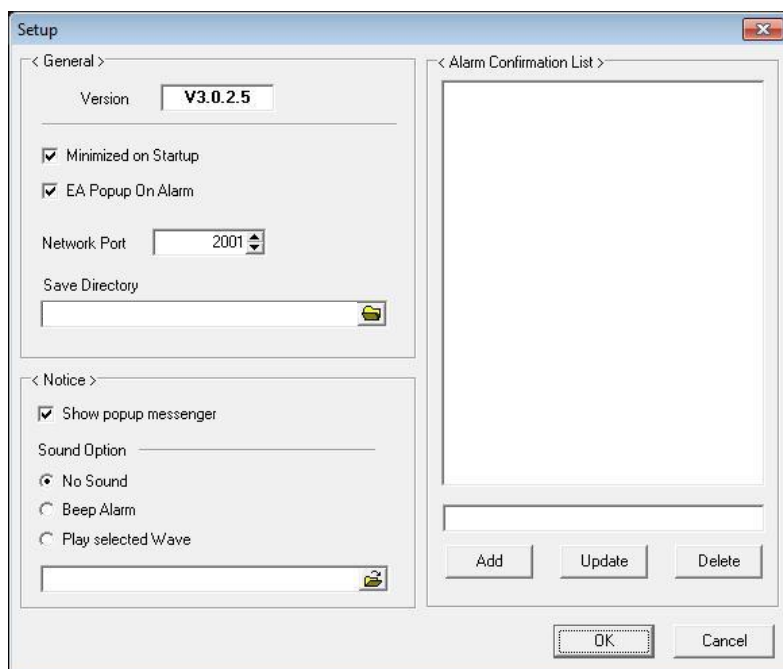
Indicates the port which the Emergency Agent uses to listen for incoming events. This number should be changed to the same number as is set in the Emergency Port in Network Settings on the recorder.

Save Directory

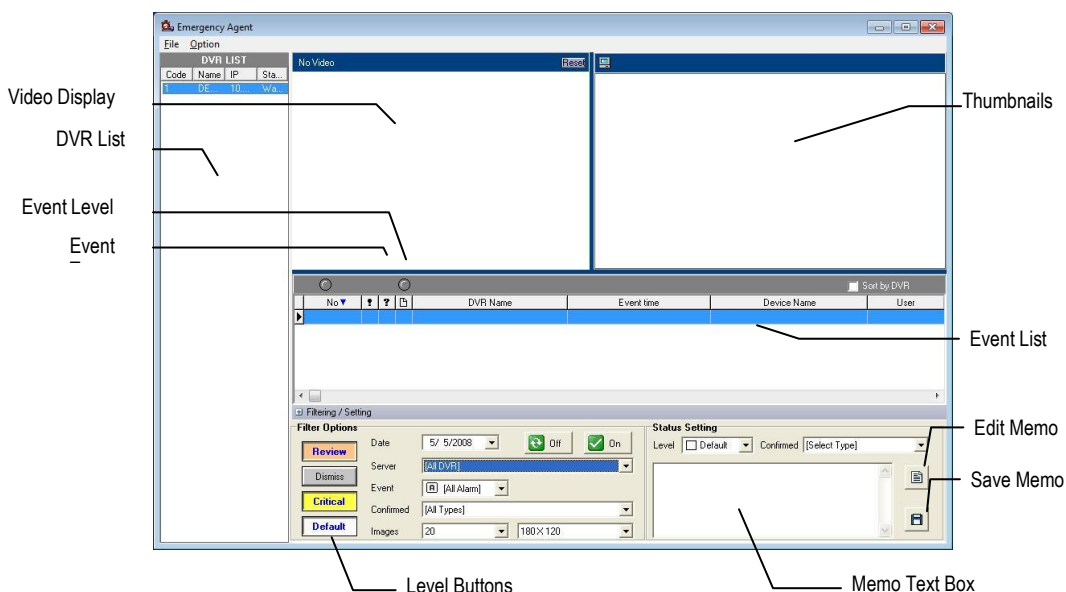
Sets the location that recorded video footage is saved to.

Notice Options

Configuration settings for activating an audible indicator or popup window when the Emergency Agent receives an event.



Emergency Agent Window



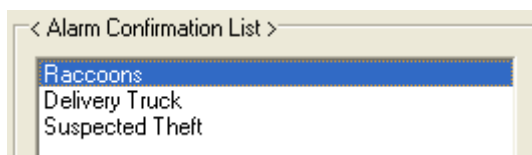
Filter Event List

1. Select a recorder from the **DVR List** in the **Filter Options** section.
2. Select the **Date** to include.
3. Select the type of **Events** to include.
4. Select the event levels (**Review**, **Dismiss**, **Critical**, **Default**).
5. Click the **On** button to display filtered event listings.

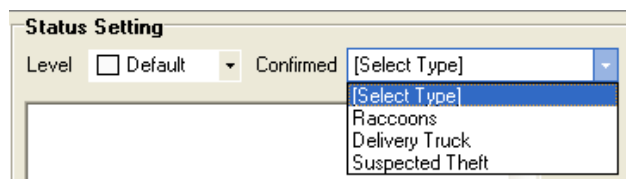
Add Items to Alarm Confirmation List

1. From the **Option** menu, click **Setup**.
2. Type the desired text in the box below the Alarm Confirmation List.

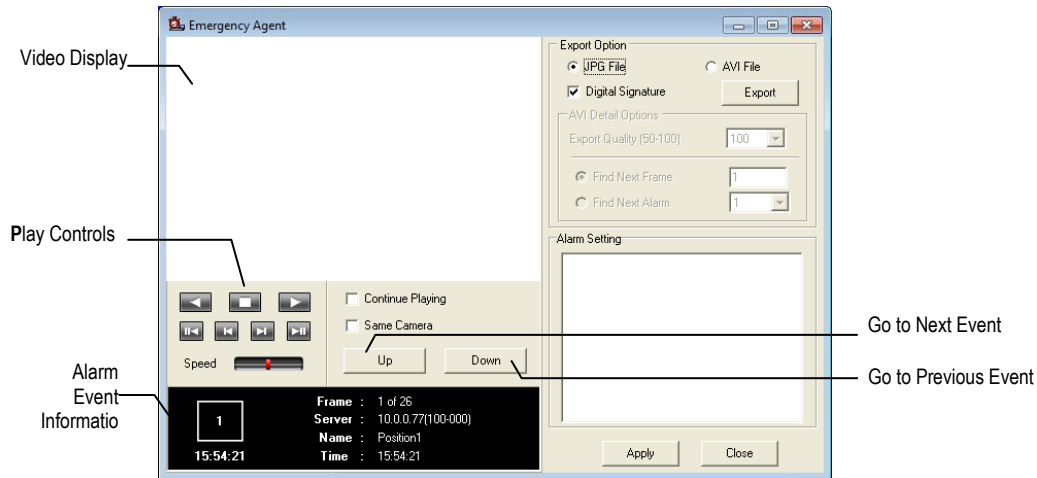
Note The items in the **Alarm Confirmation List** will be available on a list under **Status Setting** on the main Emergency Agent screen.



3. Click **Add**.
4. Click **OK** to save changes and close the window.



Search Alarm Window



Export Quality

It may be necessary to reduce the overall size of an AVI file; for example, to email to someone. AVI file sizes can be reduced by reducing the image quality. However, reducing the image quality causes the AVI video to appear more pixilated. When size is not an issue, setting quality to 100 is highly recommended.

Digital Signature

Adds a digital signature to the exported JPG image for use with the Digital Signature Verifier to verify integrity of exported images and prevent tampering.

View Recorded Video

1. Double-click an event listing to open the **Search Alarm** window.
2. Use the play controls to locate the desired video.
3. Select the **Continue Playing** check box to watch all recorded events. When cleared, playback stops at the end of the alarm event.
4. Select the **Same Camera** check box to watch all events recorded by a single camera.
5. Click **Apply** after making any changes.

Export Video

1. Double-click an event listing to open the **Search Alarm** window.
2. Use the play controls to locate the desired video.
3. Click the **Rewind** button to return to the beginning or desired spot in the video.
4. Click the **Stop** button.
5. Select the **Export Option** – JPG or AVI.
6. Select the **Digital Signature** check box to embed a digital signature in a JPG file.
7. Reduce **Export Quality** only if necessary to reduce the size of the AVI file.
8. Click **Export**.

REMOTE SOFTWARE OVERVIEW

The recorder was specifically designed to be fully operated and maintained remotely. It connects using the standard TCP/IP protocol through connection types such as DSL, Cable Mode, T1, ISDN, LAN, and more. The Surveillix Remote software allows you to view live video, search through archived video, export images and video clips and have virtually full Setup control. Surveillix Remote Software is Microsoft® Windows XP®, Windows Vista®, and Windows 7® compatible.

Highlights:

- Search archived video
- View live video
- Export images and video clips
- Control relay outputs
- Setup administration

Basics:

The recorder can have up to 5 simultaneous remote connections. Each user can perform functions on the recorder and will not affect the other users. The only exceptions to this are accessing Setup and controlling a PTZ camera. Only one user is allowed to access setup or control a PTZ camera at any given time. The pictures per second passed to the Remote Client vary greatly depending on the connection type and speed.

In order to log in to the recorder server, a user account must be made for the user. This ensures that only authorized personnel are allowed to log in. In addition, each user can be assigned different privileges that allow them or deny them access to different functions. For example: a user can be denied Searching and Setup privileges and only granted access to view cameras 4, 8 and 16.



It is highly recommended that users not be granted Setup privileges since this can pose a security risk. Only properly authorized Administrators should have access to Setup.

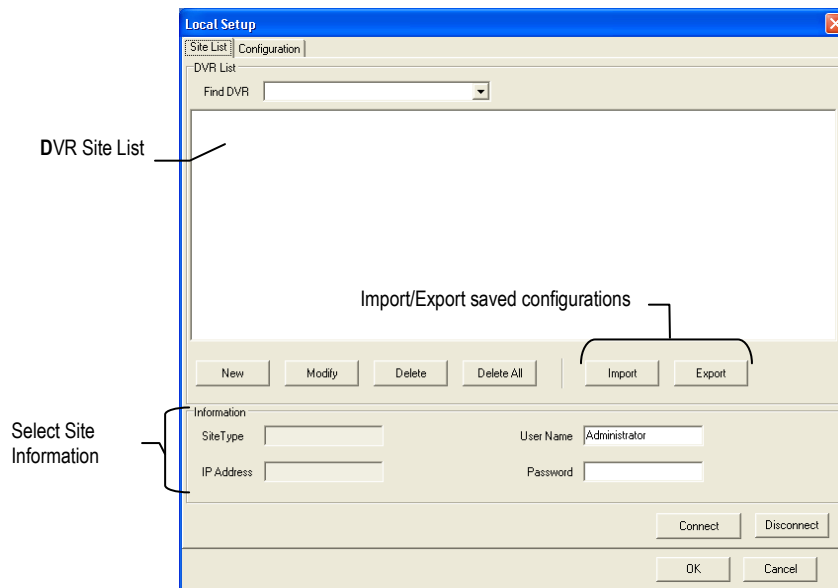
The Remote software operates virtually the same way as the recorder itself. The appearance of it matches the recorder almost identically; however, there are a few minor differences. Some search features are not available (such as the Index and Object Searches) as well as some Setup options.

Remote Software Setup

Installing Remote Software

1. On the client workstation, insert the Surveillix Software CD into the CD-ROM. The CD should play automatically.
2. When prompted, select the **Install Remote Software** option. Follow the installation instructions carefully.
3. When the software finishes installing, close any open installation windows.

Create a New Remote Connection



1. Select **Start > Programs > Surveillix > Remote > Surveillix Remote Center**. The Surveillix Remote Software opens and the Local Connection window opens.
2. Click **New** to open the **Site Info** window.
3. Select the **Site Type** and enter a **Site Name**. The **Site Name** will be the name displayed inside the connection box to help identify the unit.
4. Enter the **IP Address** of the recorder.
5. Enter the **Center Port**. This setting is specified in the server software.
6. Click **OK**.
7. Click on the newly created connection and enter the login username and password (case sensitive).
8. Click **Connect**.

Configuring the Recorder

In order to access the recorder remotely, the recorder Server must be setup to allow remote connections.

Time Out Value

Specifies a value (in seconds) to wait for a signal from the Surveillix Remote Client. If a signal is not received by that time, the connection is dropped.

Center Port

Used to transfer the connection data.

Image Port

Used to transfer the image data.

Search Port

Used to transfer the search data.

Network Setup	
TimeOut Value :	<input type="text" value="60"/>
Emergency Port :	<input type="text" value="2001"/>
(1024 - 5000)	
Center Port :	<input type="text" value="2000"/>
(1024 - 5000)	
Image Port :	<input type="text" value="2002"/>
(1024 - 5000)	
Search Port :	<input type="text" value="2003"/>
(1024 - 5000)	

DIGITAL VERIFIER OVERVIEW

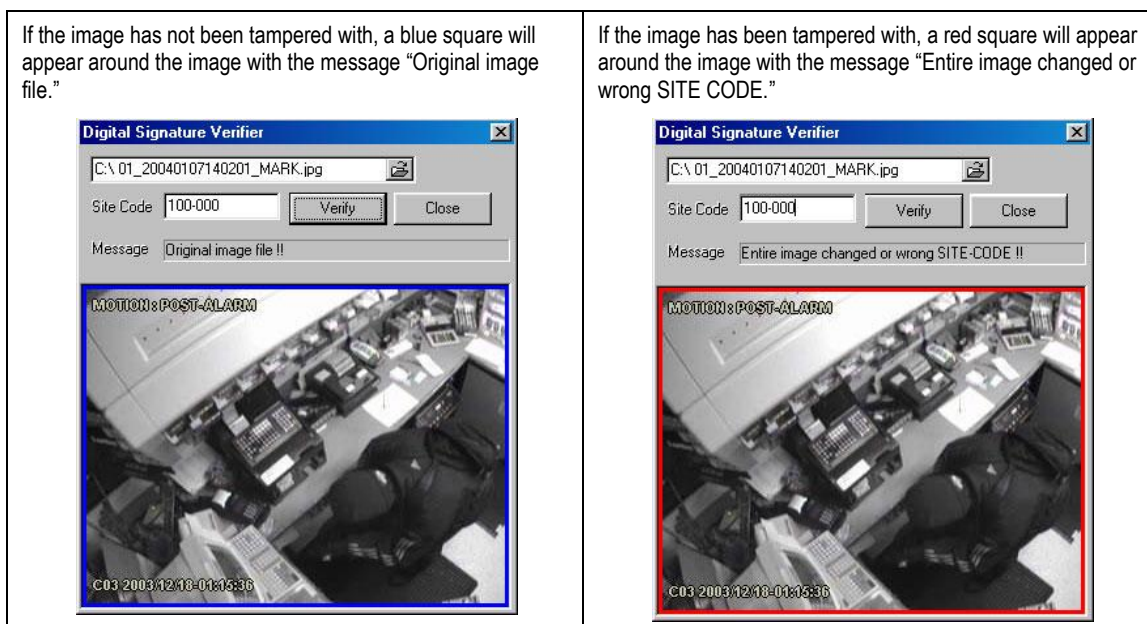
JPG images and AVI video files that are exported from the Digital Video Recorder are automatically embedded with a digital signature. Digital Signatures are a way to verify the authenticity of the images to ensure that they have not been tampered with or edited in any way. Included on the Software Installation DVD supplied with the recorder is the Digital Signature Verification program. This program can be installed on any computer and loads an image in question.

Installing the Digital Verifier

1. Insert the Software Installation CD into the CD-ROM. (Do not install on the recorder.)
2. Select the **Digital Verifier** option to begin installation.
3. When the **Welcome** screen appears, click **Next**.
4. When the **Setup Complete** window appears click **Finish**. Installation is complete.

Using the Digital Verifier

1. Open the Digital Verification program by selecting **Start > Programs > Surveillix > Digital Verifier > Digital Signature Verifier**.
2. Click the **Browse** button to load the JPG image.
3. Enter the **Site Code** of the recorder that the image was originally extracted from. (The Site Code is specified in the Information Setup menu)
4. Click **Verify** to continue or **Close** to close the window without verifying.



BACKUP VIEWER OVERVIEW

The Backup Viewer allows you to play back the exported video in its proprietary format. Video saved in this format is extremely difficult to tamper with and therefore is the ideal solution when law enforcement and the legal department are involved. This video cannot be read by any other viewer. The Backup Viewer operates essentially like the Search portion of the recorder software.

For detailed explanations of these functions, refer to the chapter on Search Options in this manual.

Installing Backup Viewer

1. Insert the Software Installation DVD into the DVD-ROM.
(Do not install on the recorder.)
2. Select the **Backup Viewer** option to begin installation.
When the Welcome screen opens, click Next.
3. Read the **License Agreement** and select the appropriate radio button to accept the terms of the license agreement.
Click Next.
4. Select **Yes** to install the POS component or select **No** for a basic install.
Click **Next**.

Note The POS component is only necessary when connecting to a server running the POS Upgrade.

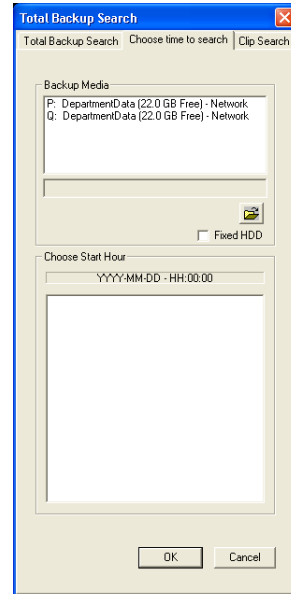
5. When the **Choose Destination Location** window opens click **Next**.
This will install Backup Viewer in the default destination folder.
6. Select the shortcuts to install, or clear all boxes for no shortcuts.
Click **Next**.
7. When the **InstallShield Wizard Complete** window appears click **Finish**.
Setup is now complete.

Loading Video from DVD or Hard Drive

1. Open the Backup Viewer program: **Start > Programs > Surveillix > Backup Viewer > Backup Viewer**.
2. Click **Open**. The **Total Backup Search** window will open.
 - a) For DVD-ROM data, select the appropriate DVD-ROM drive letter from the Backup Media box.
 - b) For hard drive data, select either an attached hard drive from the Backup Media box or select the Open Folder icon to browse to a specific directory.

Note Once selected, available video data will be displayed in the Choose Start Hour box.

3. Click on the desired time to select it.
4. Click **OK**. The video will now load into the Backup Viewer.



SCS Overview

SCS software is Network DVR Management Software; a powerful utility that allows 100 or more recorders to be controlled using one computer. This software allows you to view live video, search saved video, edit and configure setup on each recorder, and import maps of buildings and other locations.

The SCS software was specifically designed as an enterprise software solution.

Highlights:

- View Live Video on most computers
- Username and Password protected
- Easy to use graphical interface

Basics:

In order to log in to the recorder server, a user account must be made for each user. This ensures that only authorized personnel are allowed to log in. In addition, each user can be assigned different privileges that allow them or deny them access to different functions.

Connecting to a Recorder

Refer to the Setup section of the SCS Manual for information on using the SCS Software.